PD-ABE-894
XD

PROGRAM ASSISTANCE APPROVAL DOCUMENT

AGRICULTURE AND NATURAL RESOURCES (ANR) PROGRAM

(Number 635-0235)

and

AGRICULTURE AND NATURAL RESOURCES (ANR) SUPPORT PROJECT

(Number 635-0236)

United States Agency for International Development
Banjul, The Gambia

August 14, 1992

XD-ABE-894-A

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: A (A = Add, C = Change, D = Delete) — Amendment Number: 1SA

DOCUMENT CODE: 3

2. COUNTRY/ENTITY: The Gambia

3. PROJECT NUMBER: 635-0236

4. BUREAU/OFFICE: AFRICA 06

5. PROJECT TITLE (maximum 40 characters): Agriculture and Natural Resources

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 12 DD 31 YY 97

7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4)
A. Initial FY 92 B. Quarter 4 C. Final FY 96

8. COSTS ($000 OR EQUIVALENT $1 =)

A. FUNDING SOURCE	FIRST FY B. FX	C. L/C	D. Total	LIFE OF PROJECT E. FX	F. L/C	G. Total
AID Appropriated Total	2,420		2,420	12,050		12,050
(Grant)	(2,420)	( )	(2,420)	(12,050)	( )	(12,050)
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S. 1.						
Other U.S. 2.						
Host Country						
Other Donor(s)						
TOTALS	2,420		2,420	12,050		12,050

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE 1. Grant	2. Loan	D. OBLIGATIONS TO DATE 1. Grant	2. Loan	E. AMOUNT APPROVED THIS ACTION 1. Grant	2. Loan	F. LIFE OF PROJECT 1. Grant	2. Loan
(1)									
(2)						2,420		12,050	
(3)									
(4)									
TOTALS						2,420		12,050	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)
A. Code
B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

Sustainable increases in the value of production on land under improved natural resource management practices.
In addition to LOP grant of $12,050,000 noted on this Project Data Sheet, OYB transfers totalling $450,000 will also take place under the Support Project: $200,000 to Peace Corps; $250,000 to the Land Tenure Center.

14. SCHEDULED EVALUATIONS
Interim MM 10 YY 95 MM YY Final MM 06 YY 97

15. SOURCE/ORIGIN OF GOODS AND SERVICES
☐ 000 ☐ 941 ☐ Local ☒ Other (Specify)

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a ____ page PP Amendment.)

17. APPROVED BY
Signature: Bonnie A. Pounds
Title: A.I.D. Representative
Date Signed: MM 08 DD 17 YY 92

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
MM DD YY

AID 1330-4 (8-79)

ACTION MEMORANDUM FOR THE A.I.D. REPRESENTATIVE

FROM: Donald A. Drga, Agricultural Development Officer
SUBJECT: The Gambia Agriculture and Natural Resources Program (635-0235) and The Gambia Agriculture and Natural Resources Support Project (635-0236)

I. Proposed Action

Your approval is requested for a $22.05 million grant from the Development Fund for Africa (DFA) Appropriation for the Gambia Agriculture and Natural Resources Program (635-0235) and Support Project (635-0236). Per State Cable 181408, the Assistant Administrator for Africa has delegated you the authority to approve this grant, subject to REDSO/WCA concurrence. REDSO/WCA concurred on June 11, 1992 as stated in Abidjan Cable 010014. In addition to the $22.05 million grant, OYB transfers of $450,000 will support this activity, bringing the total U.S. assistance to $22.5 million. The grant comprises: (a) $10 million in non-project assistance in the form of a conditioned cash grant to be disbursed in five tranches over the five year life of the program as conditions precedent are met; and (b) $12.05 million in support project assistance in the form of technical assistance, grants to NGOs, training, program management, and ancillary equipment and supplies necessary for effective implementation of the reform program. USAID/Banjul intends to obligate $2,420,000 for project assistance and $1,000,000 in non-project assistance in Fiscal Year 1992.

II. Discussion

A. Background

The vast majority of The Gambia's population depends directly on the country's natural resource base for food, energy and income. The approximately 70 percent of Gambians who live in rural areas rely on their surrounding environment for fuelwood, for construction materials and for agricultural products which are both essential for consumption and income-generation. The urban population has a less visible dependence on natural resources, but the link is crucial: not only do urban areas rely on the resource base for fuelwood and food, but the tourism industry, an important source of foreign exchange and employment, is built upon the attractiveness of The Gambia's coastal environment and the abundance of bird life.

In recent years, however, the natural resource base of The Gambia has been weakened as a result of population growth (currently 3.4 percent annually), inappropriate resource use and a regional decline in rainfall. The environmental degradation has had direct economic consequences: loss of soil fertility has led to decreased crop yields and expansion of crop area at the expense of the livestock sector; the displacement of livestock

onto marginal lands has resulted in poor animal nutrition and lower milk and meat production; deforestation has resulted in soil erosion, massive runoff and loss of biodiversity and soil fertility; and decreasing levels of rainfall have allowed deeper saltwater intrusion in the Gambia River valley and attendant salinization of floodplain rice paddies.

The Government of The Gambia (GOTG) has recognized the problems of resource degradation and taken steps to address them. In 1987, the GOTG laid the legal foundation for subsequent action with the passage of the National Environmental Management Act. The Ministry of Natural Resources and Environment (MNRE) was established in 1990 to improve coordination of government services in the sector. The most significant GOTG action, however, has been the drafting of the 1992 Gambia Environmental Action Plan (GEAP), a ten-year plan that details the environmental challenges facing The Gambia and outlines a strategy by which to resolve them.

The macroeconomic framework in which efforts to strengthen the natural resource base will take place is crucial. The GOTG has since 1985 shown its commitment to competitive markets and economic efficiency in the allocation of goods and services. From 1985 to 1991 the Economic Recovery Program, followed by a structural adjustment program, succeeded in dramatically reducing inflation, the budget deficit, the current account deficit and debt service, as well as in increasing per capita income. A successor program, the Program for Sustained Development, is currently underway, aimed at facilitating the transition from economic recovery to broad-based, sustainable growth. These economic reforms have been supported by the IMF, World Bank, USAID/Banjul and other donors and they have impacted positively on the potential of the agriculture and natural resources sector. Producer prices, input prices and the exchange rate have been freed from government control and this will encourage greater farmer output and efficiency. The GOTG has also expressed its desire to introduce market-driven efficiency in other natural resource sectors, such as forestry.

B. Program Description

The goal of the ANR Program is to increase rural incomes by increasing incomes from crop, livestock and forest products. Progress toward this goal will be achieved in conjunction with the ANR Program purpose, which is sustainable increases in the value of production on land under improved natural resource management practices, and through the two sub-purposes: to establish a policy and regulatory environment that is conducive to the adoption of improved natural resource management practices; and to further the adoption of improved natural resource technologies.

The ANR Program is composed of non-project assistance (NPA) and support project funds. This memorandum authorizes a $22.05

million grant, $10 million of which is non-project assistance and $12.05 million of which is Support Project funds. The total U.S. assistance is $22.5 million, however, as two OYB transfers, one to fund land tenure studies for $250,000 and another to support the Peace Corps for $200,000, will be made under the Support Project.

NPA is designed to provide funds to the GOTG for debt repayment, conditioned upon policy changes by the GOTG that will lead to improved natural resource management at both the national and local level. The conditionalities for NPA, the meeting of which by the GOTG will trigger NPA Tranche releases, aim to strengthen the national policy and institutional framework governing natural resources and to facilitate the development of an effective government/local community partnership for rational management of natural resources.

Resources from the ANR Support Project will be used to strengthen the institutional capacity of the Ministry of Natural Resources and Environment, particularly the Environment and Planning Units, though the financing of technical assistance, training and commodity support. ANR Project funds will also be used to promote sustainable natural resource management at the local level by introducing and diffusing the concept of participatory Community Resource Management Agreements (CRMAs), a mechanism by which local communities will reassume control over their natural resource base. NGOs will be subcontracted to act as community organizers and to liaise between local communities and government technical services. Environmental education is also a priority sector of the ANR Project and it will be promoted through technical assistance, training and support provided to the GOTG and to the Peace Corps Natural Resource/Environmental Education program.

The primary indicators of achievement of the goal of the program will be: a 2 percent annual increase in rural incomes; and a 2 percent increase in Net National Product (NNP) from forestry, livestock and agricultural sectors (using natural resource accounting). Primary purpose-level indicators will be: 6 new Community Resource Management Agreements (CRMAs) concerning forest and rangeland, bringing 1000 hectares under natural forest management and 1,200 hectares under grazing management and at least a 25 percent increase in value of sustainable production on these lands after two years of operation, primarily from discontinuation of burning; increased CRMAs concerning improved agricultural practices, bringing 1,750 hectares under new practices, with value of sustainable production increasing by 25 percent; expansion of lowland crop production by 150 hectares due to CRMAs concerning reclaimed agricultural lands; greater than half of the increases in value of production in villages with CRMAs accrue to women; and increased value of production from adoption of sustainable natural resource technologies sector-wide.

C'

C. Financial Summary

The ANR Program is designed as a five-year effort with a Project Assistance Completion Date of December 31, 1997. A financial summary of anticipated expenditures, including OYB transfers is s'own below:

FY	Non-Project Assistance	Project Assistance	Total
1992	0	0	0
1993	4,000	1,983	5,983
1994	1,000	3,335	4,335
1995	2,000	3,238	5,238
1996	3,000	2,185	5,185
1997	0	1,759	1,759
TOTAL	10,000	12,500	22,500

D. Committee Actions and Findings

REDSO/WCA Project Review Committee has approved the PAAD and its related economic, financial, and institutional analyses. The PAAD satisfactorily justified the need for this sector program and the requirements of Section 611(a) of the FAA have been met.

E. Special Concerns

1. Environmental Determination: A Negative Determination for commodities and a Categorical Exclusion, pursuant to Section 216.2(c) of A.I.D. Regulation 16, have been approved for other activities by the Bureau's Environmental Officer.

2. Gray Amendment: In accordance with A.I.D. policy, disadvantaged enterprises will be encouraged to submit proposals through full and open competition for provision of goods and services to be procured with ANR Support Project funds. If the prime contractor is not a small, small disadvantaged or Gray Amendment entity, then the prime contractor will make every reasonable effort to identify and make maximum practical use of such organizations. In any case, no less than 10% of the total value of a contract estimated to be over $500,000 must be subcontracted to socially and economically disadvantaged enterprises.

Under full and open competition, all selection criteria, including technical and cost factors, being found equal, A.I.D. reserves the right to make the level and quality of participation of small or small disadvantaged business and Gray Amendment concerns a determining factor for selection and subsequent award.

III. Waivers : The Acting Deputy Assistant Administrator for Africa has waived the requirement in Section 110 of the Foreign Assistance Act of 1961, amended, (FAA) that the Government of The Gambia provide at lease 25% of the cost of the total program.

IV. Justification to Congress

A Congressional Notification for the ANR Program (635-0235) and Support Project (635-0236) was submitted to Congress and expired without objection on July 15, 1992.

V. Recommendation

1. That you sign the attached Project Authorization and thereby approve life-of-project funding of $12.05 million for the Agriculture and Natural Resources Support Project (635-0236).

2. That you sign the attached Program Assistance Approval Document Facesheet authorizing $1.0 million for the Agriculture and Natural Resources Program (635-0235).

Approve _____

Disapprove _____

Date August 17, 1992

Attachments:
1. Support Project Authorization
2. NPA Authorization
3. Project Assistance Approval Document

PROJECT AUTHORIZATION

Name of Country:	The Gambia
Name of Project:	Agriculture and Natural Resources Support Project
Number of Project:	635-0236

1. Pursuant to Section 496 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Agriculture and Natural Resources Support Project for The Gambia (the "Cooperating Country"), involving planned obligations not to exceed Twelve Million, Fifty Thousand United States Dollars ($12,050,000) in grant funds ("Grant") over a five-year period from the date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project. The planned life of the project is five years from the date of initial obligation. To help achieve Project objectives, one OYB transfer of $250,000 will be made to fund land tenure studies and a second OYB transfer of $200,000 will be made to support the Peace Corps.

2. The Project consists of financial and technical assistance for long-term advisory services, short-term consultancies, grants to non-governmental organizations (NGOs), training, equipment and commodities to achieve sustainable increases in the value of production on land under improved resource management practices.

3. The Project Agreement, which may be negotiated and executed by the officer to whom such authority is delegated in accordance with A.I.D. regulations and delegations of authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.

a. <u>Source and Origin of Commodities, Nationality of Services</u>

Commodities financed by A.I.D. under the Project shall have their source and origin in The Gambia, the United States, or in countries included in A.I.D. Geographic Code 935, except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities or services shall have The Gambia, the United States, or countries included in A.I.D. Geographic Code 935 as their place of nationality, except as

A.I.D. may otherwise agree in writing. Ocean shipping financed by A.I.D. under the Project shall be financed only on flag vessels of the United States or countries included in A.I.D. Geographic code 935, except as A.I.D. may otherwise agree in writing.

Bonnie Pounds

Bonnie Pounds
A.I.D. Representative
USAID/Banjul

August 17, 1992

Date

PD-ABE-894

CLASSIFICATION

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROGRAM ASSISTANCE APPROVAL DOCUMENT (PAAD)

1 PAAD Number: 635 - T - 604

2 Country: The Gambia

3 Category: Nonproject Sector Grant

4 Date: August 17, 1992

5 To: Bonnie A. Pounds
A.I.D. Representative, USAID/Banjul

6 OYB Change Number: N/A

7 From: Don Drga
Agricultural Development Officer

8 OYB Increase: None

To be taken from: N/A

9 Approval Requested for Commitment of: $ 1,000,000

10 Appropriation Budget Plan Code: 72-112/31014
GSS2-92-31635-KG39 / 281-61-635-00-53-21

11 Type Funding: [ ] Loan [X] Grant

12 Local Currency Arrangement: [ ] Interim [ ] Formal [X] None

13 Estimated Delivery Period: 12/92 - 12/97

14 Transaction Eligibility Date: Upon Authorization

15 Commodities Financed

16 Permitted Source		17 Estimated Source	
U.S. only		U.S.	
Limited F.W.		Industrialized Countries	
Free World		Local	$ 1,000,000
Cash	$ 1,000,000	Other	

18 Summary Description

Program Overview: The Agriculture and Natural Resources (ANR) Program disbursements are timed in such a way as to allow the Government of The Gambia (GOTG) to progressively implement changes in the policy and institutional framework which will promote improved natural resource management practices in The Gambia. Under this program, the GOTG will: (1) complete, approve and implement the Gambia Environmental Action Plan (GEAP); (2) rationalize funding and revenue-generation for natural resources management; (3) liberalize natural resources markets; and (4) facilitate devolution of authority over forest and grazing resources to local communities. Disbursements under the Program will take place in five tranches over the life of the Program with the first tranche disbursement planned for December 1992, contingent upon the GOTG meeting four conditions precedent: Cabinet approval of the GEAP; Cabinet designation of a coordinating body for GEAP implementation; action plans for implementation of the Program Budgeting System (PBS) in the Ministries of Agriculture and Natural Resources and Environment; and the repeal of the Livestock Marketing Act of 1975. In order to satisfy Section 575 (b) of the FY 91 Foreign Operations, Export Financing and Related Program Appropriations Act which requires the placing of nonproject sector grants in a non-commingled account, each tranche shall be placed in a non-commingled account owned by the GOTG in a U.S. bank and used to pay external debt.

19 Clearances	Date
Prog: FWitthans	8/17/92
Cont: MLew	8/17/92
RLA: AAdams	8/17/92

20 Action: [X] APPROVED [ ] DISAPPROVED

Authorized Signature: Bonnie A. Pounds — Date: August 17, 1992

Title: A.I.D. Representative, USAID/Banjul

AID 1120-1 (8/91)

CLASSIFICATION

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LIST OF ABBREVIATIONS AND ACRONYMS

AATG	Action Aid (The Gambia)
ACCNO	Advisory Committee for Coordination of NGOs
ADB	African Development Bank
ADP	Agricultural Development Project
AEPRP	African Economic Policy Reform Program
AID	Agency for International Development
ANR	Agriculture and Natural Resources
ASSP	Agricultural Services Support Project
BSP	Biodiversity Support Program
CBG	Central Bank of The Gambia
CCF	Christian Children's Fund
CILSS	Comite Inter-etats de Lutte contre la Secheresse au Sahel (Permanent Inter-State Committee for Drought Control)
CP	Condition Precedent
CRMA	Community Resource Management Agreement
CRS	Catholic Relief Services
CUSO	Canadian Universities Service Overseas
DAR	Department of Agricultural Research
DAS	Department of Agricultural Services
DCD	Department of Community Development (MLGL)
DFA	Development Fund for Africa
DLS	Department of Livestock Services (MOA)
DOP	Department of Planning (MOA)
DWC	Department of Wildlife Conservation (MNRE)
DWR	Department of Water Resources (MNRE)
ECPR	Executive Committee for Project Review
EC	European Community
EIS	Environmental Information System
EOPS	End of Project Status
EPAT	Environmental Policy and Training Project
ERP	Economic Recovery Program
FAO	Food and Agriculture Organization
FAPE	Financial and Private Enterprise Program
FSP	Forestry Support Program
FSR	Financial Sector Restructuring Project
FY	Fiscal Year
GARD	Gambian Agricultural Research and Diversification Project
GCDB	Gambia Commercial and Development Bank
GCU	Gambia Cooperative Union
GDP	Gross Domestic Product
GEAP	Gambia Environmental Action Plan
GGFP	Gambia-German Forestry Project
GOTG	Government of The Gambia
GPMB	Gambia Produce Marketing Board
GRUDA	Gambian Rural Development Association
GTZ	Gesellschaft für Technische Zusammenarbeit (The German Technical Assistance Agency)
HBCU	Historically Black Colleges and Universities
IBRD	International Bank for Reconstruction and Development
ICDP	Integrated Conservation Development Project

IDB	Islamic Development Bank
IDRC	International Development and Research Corporation
IEE	Initial Environmental Examination
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
IRR	Internal Rate of Return
ITC	International Trypanotolerance Center
KWNP	Kiang West National Park
LMB	Livestock Marketing Board
LOA	Livestock Owners' Association
LTC	Land Tenure Center (University of Wisconsin)
M&E	Monitoring and Evaluation
MFEA	Ministry of Finance and Economic Affairs
MLGL	Ministry for Local Government and Lands
MNRE	Ministry of Natural Resources and Environment
MOA	Ministry of Agriculture
NASS	National Agricultural Sample Survey
NEMA	National Environment Management Act
NEMC	National Environment Management Council
NGO	Non-governmental Organization
NPA	Non-project Assistance
NRM	Natural Resources Management
NPV	Net Present Value
OYB	Operating Year Budget
PAAD	Program Assistance Approval Document
PAIP	Program Assistance Initial Proposal
PBS	Program Budgeting System
PCV	Peace Corps Volunteer
PEP	Public Expenditure Program
PIO/T	Project Implementation Order/Technical Assistance
PM	Person-month
PPMU	Program Planning and Monitoring Unit (MOA)
PRA	Participatory Rural Appraisal
PSC	Personal Services Contractor
PSD	Program for Sustained Development
PVO	Private Voluntary Organization
PY	Person-year
REDSO/WCA	Regional Economic Development Support Office/West and Central Africa
RFP	Request for Proposals
RLA	Regional Legal Advisor
SAL	Structural Adjustment Loan
SCF	Save the Children Federation
SDR	Special Drawing Rights
SWMU	Soil and Water Management Unit
TANGO	The Association of Non Governmental Organizations
TDY	temporary duty
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNSO	United Nations Sudano-Sahelian Office
USAID	United States Agency For International Development
USDH	U.S. Direct Hire
VDC	Village Development Committee
WRI	World Resources Institute
WWF	World Wildlife Fund

I. PROGRAM SUMMARY AND RECOMMENDATIONS

The vast majority of The Gambia's population depends directly on the country's natural resources for its food and energy supplies, and for cash income. Natural resources also support the important tourist industry and exports of commodities such as peanuts and horticultural products. These resources are, however, degrading rapidly as a result of population growth (currently 3.4 percent per year) and inappropriate resource use. Population density now exceeds 80 persons per km^2, one of the highest levels in Africa. Dense forest and woodland have decreased from 60 to perhaps 5 percent of the total land area since the 1940s, uncontrolled range burning is prevalent and fallowing has been shortened or eliminated. In recent decades resource degradation has been aggravated by the steady decline in rainfall which has affected most of Sahelian Africa. In comparison to the 1950s, the onset of the rains now generally occurs one month later, and the total annual rainfall in The Gambia is estimated to have decreased by 15 percent.

The direct economic and other consequences of this degradation are being increasingly felt. The decline in soil fertility is reflected in lower crop yields. The extension of the cultivated area to compensate for declining fertility is occurring at the expense of the livestock sector. The displacement of livestock onto less productive range and repeated range burning have resulted in poorer animal nutrition, and hence in lower meat and milk production. Massive deforestation has caused soil erosion, excessive runoff, and the extinction of some animal species. The decrease in wild animal species and numbers means that hunting can no longer serve as an important source of protein for rural populations. Decreased biodiversity also potentially undermines the tourist industry. More urgently, on a national basis, the current rate of fuelwood consumption is no longer matched by wood regeneration and this has negative economic and environmental effects. One immediate impact of the Sahelian drought and related decrease in runoff has been deeper saltwater intrusion in the Gambia River valley, with attendant salinization of floodplain rice paddies. In general, the drought and forest degradation have decreased groundwater recharge, and thus resulted in a general lowering of water tables.

In response to these problems of resource degradation, the Government of The Gambia (GOTG) and the donor community, including USAID, have initiated and funded a number of activities in the agriculture and natural resources sector, notably since the early 1980s. In 1987, the GOTG laid the legal foundation for subsequent action with the passage of the National Environmental Management Act. The Ministry of Natural Resources and the Environment (MNRE) was established in 1990 to improve coordination of government services in the sector. It is, however, with the 1992 Gambia Environmental Action Plan (GEAP) that concerted, national action to combat resource degradation

began. This ten-year, GOTG-driven plan provides the policy and planning context within which the Agriculture and Natural Resources (ANR) Program was designed. The ANR Program supports, by means of policy interventions and technical and other assistance, the implementation of the GEAP.

A. The ANR Program

The Agriculture and Natural Resources (ANR) Program is a five-year, $22.5 million effort funded under the Development Fund for Africa (DFA). It is guided by, and builds upon, the policies, priorities and actions contained in the GEAP. The Program conforms to the USAID/Banjul Action Plan for 1991-95, the goal of which is to accelerate the rate of real growth in per capita income in The Gambia. It also builds on the achievements and experience gained with earlier or concurrent USAID and other projects in agriculture, soil and water conservation, forestry and range management. Finally, the Program is broadly supportive of the GOTG's Program for Sustained Development (1989-1993), which succeeded the highly successful Economic Recovery Program (1985-1989). Both the GEAP and the ANR Program recognize that sound economic policies and a sound resource base are inseparable, and mutually reinforcing.

The goal of the ANR Program is to increase rural incomes from crop, livestock, and forest products. This goal is consistent with the USAID/Banjul Action Program and with the stated objectives of the GOTG. The ANR Program's Purpose, which is also one of the Mission's Strategic Objectives, is to achieve sustainable increases in the value of production on land under improved resource management practices. Two sub-purposes of the Program are: (a) to establish a policy framework conducive to the adoption of improved resource management practices; and (b) to promote the adoption of these improved practices.

B. Program Strategy and Components

The ANR Program has two components: Non-project assistance (NPA), totalling $10 million to promote policy and institutional reforms in the ANR sector, and an additional $12.5 million for an ANR Support Project.

Non-Project Assistance. The ANR Program's NPA component will provide funds to the GOTG for debt repayment, conditioned upon policy changes by the GOTG that will lead to improved management of natural resources at both the national and local levels. The eleven conditionalities are within the manageable interest of the Mission. The conditionalities were designed to promote policy and other institutional changes in two broad areas:

- **Strengthening the national policy and institutional framework governing natural resources;**

- **The creation of an enabling framework that will allow local communities to assume management control of, and benefit financially from, local land-based resources.**

The conditionalities for **strengthening the national policy and institutional framework** are targeted as follows:

- **Completion, approval and implementation of the GEAP;** intended to ensure that implementation of this plan, with its key role in Gambian resource management, would not be delayed by failure to designate a strong coordinating agency, and to include environmental action plans in the normal Public Investment Program;

- **Rationalization of funding and revenue-generation for natural resources management;** intended to improve, by means of the Program Budgeting System (PBS), the planning and budgeting of government activities in the ANR sector, and to ensure that public expenditures in the sector are cost-efficient; other conditionalities are designed to improve resource pricing, and to explore options for retaining revenues within the resource-generating sectors;

- **Liberalization of natural resources markets;** intended to repeal the Livestock Marketing Act which, although no longer fully enforced, is a potential constraint on the free market of cattle through exports; repeal of the Act is a first step towards the privatization of the country's principal abattoir.

The conditionality for **creating an enabling framework that will allow local communities to assume management control of, and benefit financially from, local land-based resources** is one with potentially far-reaching implications:

- **Legislation concerning forestry, grazing, wildlife and other resources will be reviewed and revised so as to enable local communities to assume management responsibility over local resources, and to profit from this management, subject to government monitoring.**

Proposed legislative revisions will follow careful evaluation of pilot experiments in local resource management (under "Community Resource Management Agreements") to ensure their appropriateness for achieving the objective of shared participation in resource management.

Support Project. The ANR Program will include $12.5 million in project assistance. These funds will be used to finance technical assistance, commodity support, training and field-level activities which support implementation of the policy agenda. The GOTG lead implementing and, therefore, counterpart agency will be the Ministry of Natural Resources and Environment (MNRE).

Activities under the Support Project will be specifically designed to:

- **strengthen the capacity of MNRE, primarily of its Planning and Environment Units, to formulate policy and to plan, coordinate and monitor the status of the natural resources sector and activities affecting it;**

- **develop and expand the use of the Program Budgeting System within MNRE and Ministry of Agriculture (MOA), the two leading natural resources ministries;**

- **promote the diffusion and adoption of the concept of participatory Community Resource Management Agreements (CRMAs), and of improved resource management technologies at the local level, with NGOs acting as community organizers and intermediaries between local communities and government technical services (e.g. forestry, range management, agricultural research and extension, soil & water conservation).**

These three areas of Support Project activities reflect the basic Program strategy of promoting improved natural resources management at both the national and local levels. The use of NGOs as catalysts or intermediaries at the local level reflects previous experience in empowering local communities for resource management, notably using the Community Forestry concept. This experience has shown that a period of information and consensus-building is necessary before a community is ready to approach the government technical services to negotiate a resource management plan and conclude a CRMA. Communities also need assistance during the negotiations with the government. The community-based program under the ANR Support Project will be designed primarily to promote activities leading to a CRMA. However, where the management of a common-use resource does not require a formal CRMA, the Project will be sufficiently flexible to include other natural resource conservation activities (e.g. on-farm soil conservation).

C. Expected Program Results

The ANR Program will lead to better national policies and planning in the agriculture and natural resources sector. In turn, the improved national policy framework will support the diffusion and adoption of more productive and sustainable resource use at the local level. The ANR Program, through its

Support Project, will directly promote and accelerate the adoption of more effective and profitable use of resources in rural communities.

The expected benefit of the ANR Program is a permanent reversal of the downward trend in agricultural productivity. Without the project, agricultural productivity is expected to continue to decline. With the project, productivity will slowly increase as natural resource management practices are implemented and adopted. Not only will it take several years for the practices to affect productivity, but the diffusion of these practices to other farmers and villages will take many years as well. Despite the differences in timing between when project costs are incurred (early) and when project benefits are realized (much later), the project has a positive net present value (NPV) when a 10 percent discount rate is used. The internal rate of return (IRR) for the project is 21 percent. Although these results are most sensitive to assumptions about the spread rate of improved resource use, conservative spread rates have been used in the calculations and this indicates that the true NPV and IRR may be even higher. Both the positive net present value and the high IRR suggest that the ANR Program is an efficient use of financial resources.

Although program impacts will be most readily observable in target villages with community resource use agreements, broad sector-wide impacts are also expected during the life of the ANR program. Based on data contained in the Economic and Financial Analysis, it is anticipated that by project year five, approximately 450 households in 20 villages will benefit from improved natural resource management through Community Resource Management Agreements. The spread rate is expected to increase after the project itself ends (assuming that villages without any direct NGO presence will begin to adopt some of the techniques being used in the NGO target villages). By year ten, approximately 1500 households in 60 villages would benefit, and by year 25, the number of benefiting households would reach over 19,000 in nearly 800 villages. These spread rates are judged to be realistic and achievable, especially given that they include only benefits from on-farm improvements, and not additional benefits expected from improved management on range land or forests. Additional impacts will be apparent sector-wide through benefits from the increased adoption of natural resource conserving practices. Policy changes regarding forests, improved environmental education, and enhanced efficiency of MNRE services will encourage the reduction of forest stripping, the adoption of improved household and farming practices, and improved range management. Indicators for expected impacts of sector-wide changes are included in the Program Logframe Annex.

The impact of the ANR Program holds significant potential for women, since they rely heavily on common property resources. Women are the primary managers of small ruminants and often

tether their animals in the commons. As the primary gatherers of firewood and other tree products, women depend upon open access to forests. Women also have important roles in agro-forestry through the introduction of live fencing in vegetable gardens and in trees/orchards planted within or adjacent to the gardens. Thus, the introduction of improved resource management techniques and the creation of a policy environment which encourages their adoption should prove particularly beneficial to Gambian women.

D. Program Implementation

Non-Project Assistance. The $10 million NPA will be used by GOTG for external debt repayment. It will be disbursed (as U.S. dollars deposited in a dedicated GOTG account in a New York bank) in five Tranches, subject to fulfillment of Program conditionalities. The initial Tranche of $2 million is scheduled to be disbursed about four months after signature of the Program Agreement. The remaining four Tranches will be disbursed annually at about the beginning of the GOTG fiscal year (July 1). Senior AID Mission and GOTG officials will review annually the progress towards fulfillment of the conditionalities.

Support Project. The $12.5 million Support Project will consist of:

- USAID Program Management for 4.0 person-years (PY), totalling approximately $645,000.
- Long-term technical assistance through an institutional contractor, including a Senior Policy Advisor/Resource Planner for 4.0 PY; a Grants Administrator (who will support and manage the NGO grants program) for 4.0 PY; a Program Budgeting System Advisor for 2.5 PY; an Environmental Education Advisor for 2.0 PY; and a Natural Resources Inventory Specialist, 1.0 PY. The total cost of long-term TA will be approximately $3,813,000 (including contractor overhead and support);
- Approximately 62 person-months of short-term technical assistance costing approximately $1,424,000;
- NGO sub-grants totalling approximately $1.8 million;
- An OYB Transfer to the Peace Corps Natural Resource/Environmental Education program for $200,000;
- An OYB Transfer for studies by the Land Tenure Center for $250,000;
- Studies, Audits & Evaluation at $600,000;

- Training and Networking (degree training in U.S and third countries; short-term in-country and third-country training) approximately $1,804,000;

- Commodities, including computers and other office equipment and supplies totalling approximately $972,000; and

- Contingency and inflation totalling approximately $992,000.

Management Structure. USAID/Banjul will have primary management responsibility for the Program, and will initiate the primary contracting. Owing to limited USDH staff at post, the Program, including the Support Project component, will be managed by a resident PSC Program Manager. Long and short-term technical assistance will be obtained under an Institutional Contract. The Institutional Contractor will also handle commodity procurement and plan analytical studies in consultation with MNRE staff.

Grants to NGOs will be managed by the Institutional Contractor. The Grants Administrator will manage the NGO sub-grants and provide technical coordination support in the field. Overseas training will be managed by the Mission's Human Resources Development Officer, while all in-country training and regional networking will be the responsibility of the institutional contractor.

E. Host-Country Contribution

USAID/Banjul will seek a waiver of FAA Section 110 (requiring a 25 percent host government contribution). The Gambia is eligible for a waiver under FAA Section 124(d), since it is considered a "Relatively Least Developed Country" by the United Nations. The estimated GOTG contribution (encompassing salary and recurrent operating costs for relevant MNRE and MOA units), was estimated at $3.3 million over the five year LOP. This would represent a potential GOTG contribution of only 12 percent.

II. PROJECT BACKGROUND AND CONSTRAINTS

A. Background

1. Macroeconomic Overview

a. The Economic Recovery Program

Following nearly a decade of severe economic deterioration, the Government of The Gambia (GOTG) in 1985 began implementing an ambitious program of structural adjustment entitled the Economic Recovery Program (ERP). At the core of the ERP was a recognition that pervasive state control of the economy had

failed to deliver real growth or to improve the standard of living of the majority of Gambians. During the previous decade, a combination of adverse external conditions and ill-advised centrally-controlled economic policies worked to push the Gambian economy to the brink of disaster. By 1984, The Gambia found itself confronted with the familiar litany of economic maladies associated with command economies: accelerating inflation, ballooning fiscal deficits, excessive import dependence, declining export earnings, severe shortage of foreign exchange, unmanageable balance of payments shortfalls, rising debt service arrears, and declining per capita income.

Amidst an atmosphere of extreme crisis, the GOTG acknowledged in 1985 that the situation had become untenable and set up a task force of Gambians to draw up an emergency stabilization program. USAID and the World Bank each supplied short-term technical advisors to work with the task force and assist in the implementation of a package of drastic remedial reform measures that were necessary to resuscitate the paralyzed Gambian economy.

The ERP reforms abolished price controls, instituted a floating exchange rate system, eliminated interest rate controls, restored fiscal and monetary discipline, and generally opened the factor markets to the discipline of market forces. Under the ERP, the GOTG made important strides in reducing the role of government and the public sector in the allocation of resources and in the production and supply of goods and services. A review of the standard macroeconomic indicators demonstrates that macroeconomic stability has been restored. (Annex G provides summary statistical data on these factors.)

Inflation: Inflation was reduced dramatically from a high of 70 percent in 1986 to 11 percent in 1991. This was the result of following prudent monetary and budgetary policies.

Budget Deficit/Surplus: Equally as dramatic as the decline in inflation, the Government budget deficit, excluding grants, was reduced from 22 percent of GDP in FY 1986/87 to an expected 3.9 percent in FY 1991/92. In the Policy Framework Paper negotiated with the IMF and World Bank covering the period FY 1991/92 to FY 1994/95 a further decline is projected. If donor grants are included in the calculation, the GOTG is expected to have an actual surplus in its budget for FY 1991/92 of 2.5 percent.

Current Account, Balance of Payments: Excluding official transfers, The Gambia's current account deficit is about 15 percent of GDP. When official transfers are included, Gambia is projected to have an actual surplus in FY 1991/92. Official transfers and loans coupled with private capital inflows have resulted in an overall surplus in the balance of payments, thereby permitting an increase in holdings of

international reserves.

Debt Service and Official Reserves: The Gambia's debt service requirements have been reduced dramatically due to its liquidation of all external arrears. Not only has The Gambia paid off its arrears, but it has built up its holdings of international reserves from 1.4 million Special Drawing Rights (SDRs) in FY 1985/86 to a projected 67.9 million SDRs in FY 1991/92. The large build-up of reserves is needed as a buffer, given the fragile nature of The Gambian economy and continued large debt service payments.

Per Capita Income: Since the start of the Economic Recovery Program in mid-1985, real GDP growth has averaged 3.4 percent a year, just equal to the rate of population growth. GDP growth has, however, picked up in recent years and has averaged 4.0 percent a year since June 1988. Nominal per capita GDP is currently estimated to be $380.

Despite the accomplishments of the ERP in stabilizing the economy at the macro level, optimism at the close of the program has been tempered by two significant considerations. The first is that successful implementation of the stabilization program and continued progress in meeting program targets have been the result of a happy confluence of luck (i.e. good weather, good production and buoyant world market prices for groundnuts), donor willingness to contribute exceptional levels of official assistance to support the reform program, and continued restrictive trade policies of other countries in the region that allow the GOTG to collect significant tax revenues from The Gambia's regional entrepot trade. As each of these factors is highly vulnerable to influences outside the control of GOTG policy makers, none can reasonably be relied upon as a satisfactory engine of long-term sustainable growth.

The second consideration mitigating post-ERP optimism is that, while economic expansion occurred under the ERP, growth of real per capita income over the past five years has been modest, and tangible benefits, particularly among the lower income strata, have been slow to materialize. With an annual per capita income of approximately $380, a life expectancy at birth of 43 years, and a literacy rate of 32 percent, The Gambia remains among the poorest and least-developed countries in the world.

In brief, The Gambia has yet to achieve the level of sustainable growth necessary to insulate the economy from external shocks and to generate capital for new investments in productive sectors of the economy.

b. IMF and World Bank Programs

The Gambia was one of the first African countries to "graduate" from an IMF structural adjustment program. On July 15, 1991 the IMF's Executive Board met and approved the final tranche under the Enhanced Structural Adjustment Facility. In the IMF's midterm review of The Gambia's performance it was stated:

> "With the restoration of financial stability, the improvement in the external position, and the structural reforms that have taken place, the foundation for sustained economic growth has been laid. Nevertheless, the dependence on favorable weather conditions highlights the vulnerability of The Gambia's economy and underscores the need to increase productivity, and vigorously pursue programs designed to widen the country's production base, particularly in horticulture and fisheries. The paucity of natural resources also calls for continued efforts to enhance human resource development. However, in order to realize the growth potential of the economy, further progress must be made in following through on structural reforms, while strictly adhering to prudent financial policies".

Given that there is no further need for financial support from the IMF, no follow-on formal program will be signed. However, a "shadow IMF program" will be adhered to and will involve continued close dialogue with the IMF on the macroeconomic framework. Economic and financial quarterly targets will be set and the IMF will review performance in the context of Article IV Consultations. Annex G presents statistical data summarizing The Gambia's performance under the 1990/91 program.

With respect to the World Bank's Program in The Gambia, Structural Adjustment Loan II (SAL II), The Gambia has satisfactorily met all criteria for release of the second and final tranche of approximately $12 million. Unlike the IMF's quantifiable targets for determining performance, the World Bank's program is built on qualitative performance indicators. The reform program called for comprehensive measures to: (1) promote a favorable policy and institutional environment; (2) focus the Government's role on economic management, rather than on direct involvement in productive activities; and (3) reorient public resources to the development of infrastructure and support services to the private sector and the social services. SAL II was designed to increase efficiency in the use of public resources by supporting:

- The GOTG's move toward a public expenditure programming approach to budgeting, in order to facilitate adequate funding of priority programs and maximize their impact, while identifying those expenditures that should be

reduced, eliminated, or postponed;

- The restructuring of government agencies that facilitate private sector activity; and

- The GOTG's withdrawal from productive activities where the private sector can be more efficient, while monitoring closely the performance of remaining public enterprises through performance contracts.

To alleviate long-term human and physical constraints, SAL II supported the Government's efforts to increase the share of resources in the recurrent budget allocated to education (with emphasis on primary education) and health (with emphasis on basic health care and family planning services), and the government's focus on the rehabilitation and maintenance of infrastructure in the public investment program.

c. Program for Sustained Development

The ERP ended officially in June 1989 and was succeeded by a four-year "Program for Sustained Development" (PSD), designed to facilitate the transition from a program of economic recovery to one of broad-based sustainable growth. The PSD reconfirms the government's commitment to maintain the liberal market-based economic policy framework established under the ERP, and reiterates the GOTG's conviction that the private sector is the most appropriate and reliable source of productive investment and commercial development in The Gambia.

Under the PSD, the GOTG seeks to create an enabling environment to foster economic growth. This includes measures to: (1) consolidate the macro-economic reforms implemented under the ERP; (2) continue to reduce the size and scope of the public sector through privatization and divestment of parastatal holdings; (3) improve efficiency in administration of government and provision of social services; and (4) manage a public investment program aimed at expanding the productive base of the economy.

d. Impact of Macroeconomic Reforms on the Agricultural Sector and Future Directions

Prior to the ERP, the agricultural sector was adversely affected by low producer prices, shortages of inputs, an overvalued exchange rate, disintegrating rural infrastructure, and predatory public enterprises. Low producer prices and an overvalued exchange rate are equivalent to heavy taxation on agriculture. The Gambia Produce Marketing Board (GPMB) paid low producer prices for groundnuts in order to build up a "stabilization fund" which was used to cover food subsidies, the

purchase of real estate, loans to civil servants and budget support. In addition, government expenditures were biased away from agriculture. These activities amounted to a transfer of income from the rural to the urban sector and acted as a disincentive to agricultural investment and production.

The ERP had a major impact on changing relative prices between agriculture and the rest of the economy and, in addition, within agriculture itself. The key policy changes were exchange rate reform, the decontrol of prices and a freeze on government salaries.

Fertilizer prices and rice prices were decontrolled and, initially, a subsidy was paid to groundnut producers. These changes along with the devaluation of the dalasi resulted in the price of groundnuts increasing relative to other prices in the economy, and, within agriculture, the price of groundnuts and coarse grains increasing relative to the price of rice. Parastatal reform focused on increasing the efficiency of GPMB, the Gambia Commercial and Development Bank (GCDB), and the Gambia Cooperative Union (GCU). Interest rates were decontrolled, which was expected to increase the level of savings in the economy and give all borrowers improved access to credit. Finally, the public investment program was reoriented away from new projects and instead was focused on rehabilitation of physical infrastructure (roads, ferries, telecommunications, port, and airport). Improvements in parastatal efficiency and rehabilitation of infrastructure were expected to result in lower marketing costs and thereby higher returns to farmers.

While there have been some successes, farmer response to the reforms has been disappointing. Agricultural production has not kept up with population growth and resource degradation has been aggravated by the steady decline in rainfall. The privatization of fertilizer distribution and the reform of the rural credit system have not resulted in significant progress. However, the indisputable fact is that disengagement by government from agriculture has not had an adverse effect on either output or productivity. The sector's uneven performance highlights the country's vulnerability to weather conditions, and underscores the need to accelerate the ongoing diversification efforts.

The Gambia's 1992 Policy Framework Paper stated: "In the future, the Government will continue to adhere to policies that will encourage agricultural diversification through the expansion of crops that can be produced competitively in the Gambia, while promoting increased efficiency in the groundnut subsector. Provision of credit to all agriculture-related activities will be on commercial terms, including credit provided through development projects, except for a small number of projects in which funds are on-lent at less than commercial terms at donors' insistence, and the activities of certain Non-Governmental Organizations (NGOs). The price of all agricultural products and

inputs, such as seeds and fertilizers, will continue to be determined by market forces, while the marketing of products and inputs will continue to be carried out predominantly by the private sector. Moreover, an action program for strengthening applied research and extension services is being prepared for implementation as of 1992/93, which stresses efficient production of groundnuts and an increased contribution by the rural community to the production of crops for export and input substitution".

2. Characteristics of the Agriculture and Natural Resources Sector

The Gambia's production base is narrow and essentially agrarian. The semi-subsistence nature of the country's agriculture and the inability of once stable traditional resource management systems to fully adapt to growing population, changing rainfall and other factors have led to stagnant production, low productivity, and a degradation of the natural resource base.

Agriculture accounts for 34.5 percent of The Gambia's Gross Domestic Product (GDP), and employs 75 percent of the labor force. The limited amount of manufacturing is primarily agriculture-based (e.g., groundnut processing, bakeries, a brewery, and a tannery). Groundnut production accounts for 10.2 percent of total GDP, and other crops for 10.7 percent. Livestock accounts for 10.9 percent of GDP, forestry for 1.8 percent, and fishing for 0.9 percent.[1] There has been no change in the overall contribution of agriculture to GDP in recent years, but the relative importance of groundnuts has fallen, while the contributions of cereals, other cash crops and livestock have increased.

In FY 1990, almost 100 percent of The Gambia's domestically produced exports were agricultural products. Groundnuts are the major commodity and account for 50 percent of total domestic exports. Other exports include fish, lobster, and shrimp (24.2 percent), horticultural commodities (8.8 percent), and other products, such as cotton, hides, and live cattle (17.0 percent).

Most of the cropped area is rainfed, with irrigation limited to about 3000 hectares. Almost half of all cultivated land is planted in groundnuts for export. Millet is next in importance, with 30 percent of the cultivated area, followed by maize with 10 percent. Rice and sorghum are also important grains.

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[1] Note that these figures do not take into consideration the informal sector. Thoma (1989) estimates that the Gambian forest products account for 25 percent of the GDP when one takes into account locally harvested and consumed fuelwood, roofing materials, and so forth.

Horticultural crops have grown appreciably in importance in recent years and could become a major source of exports. Swamp lands and irrigated areas are generally planted in rice. Major GOTG investments in capital-intensive irrigated rice production (e.g. the Jahally-Pacharr Project) have proven to be significantly uneconomic.

Livestock is an important component of Gambian agriculture, with an estimated 15-20 percent of the population owning cattle. Almost all farm compounds keep small numbers of sheep, goats, and poultry. The cattle stocking rate is calculated at around 33 animals per km^2, which is higher than that generally advised by livestock experts. Combined with sheep and goat production, the pressure on grazing lands is severe. All livestock is kept under traditional husbandry systems and productivity is generally low.

For the forestry sector, fuelwood and timber are the major products. Approximately 85 percent of the country's energy requirements are met from fuelwood. Unfortunately, the rate of fuelwood consumption is presently greater than the growth rate of the remaining forest and thus fuelwood is increasingly scarce. In terms of timber production, The Gambia is currently able to meet only about one-fourth of its lumber requirements from domestic production.

The agriculture and natural resource sector is recognized as a linchpin to the growth of the Gambian economy. Government policy, as expressed in the Program for Sustained Development (PSD), will be to continue to encourage the production of rainfed crops, especially groundnut and coarse grains, and to continue the expansion of livestock. Horticulture has been recognized as a target growth area in the PSD. Recognizing that a strengthened natural resource base is a prerequisite to rural production improvements, the GOTG has made it an objective to "arrest and reverse environmental deterioration and depletion of natural resources...."

Restructuring of groundnut marketing, which is occurring with the assistance and active involvement of USAID, increases the likelihood of greater returns to farmers and greater export earnings. Diversified avenues for horticultural marketing are expected to take advantage of the large and growing production capacity in the rural areas. While formal rural credit programs met with marginal success in the 1970's and 1980's, efforts to develop appropriate rural credit systems join with the continued financial sector restructuring (USAID Financial Sector Restructuring Program) to offer an improved likelihood of efficient money markets in the rural areas. In the meantime, emphasis will continue to be on investments requiring relatively low amounts of capital. Although the government has explicitly advocated, and taken steps to further, the liberalization of input markets, some of the markets have been slow to respond.

Private dealers have been hesitant to enter the fertilizer markets, but seed and other input markets have met with greater success.

B. Problem Statement: Degradation of the Natural Resources Base

While the agriculture and natural resources sector remains a very important component of the Gambian economy, its performance has been disappointing. Total food production per agricultural laborer has remained static, even as the area cultivated has increased. Moreover, the natural resource base upon which agriculture depends is rapidly degrading, thus putting at risk the long-term sustainability of agricultural production.

Two fundamental catalysts of this degradation have been: (1) The Gambia's high population growth rate and consequent increase in demand for agricultural and natural resource products; and (2) the steady decline in rainfall that has been prevalent throughout Sahelian Africa in recent years.

The Gambia's population, if it continues to grow at the rate of 3.4 percent per year, will double in approximately 21 years. The country's population density is currently 80.4 persons per km^2, one of the highest levels in Africa. With high rates of rural-to-urban migration, the non-agricultural population now accounts for more than one out of every three Gambians. Increasing imports of food and forest products testifies to the growing domestic demand for agricultural and natural resources products, and especially for livestock products, grains, and forest products.

The length of the rainy season has been declining in The Gambia, with its onset shifting from mid-June to mid-July. Rainfall records for the Banjul area indicate that, for the period 1886 to 1968, 50 percent of the years were wet and 25 percent dry. During the period 1968 to 1990, in contrast, 5 percent of the years were wet and 75 percent were dry. It has been estimated that total annual rainfall in The Gambia has decreased 15 percent since the 1950s.

Traditional resource management practices in The Gambia have not been able to adapt effectively to these two long-term trends (despite, for example, a major shift in cropland to early millet). In most parts of the country, pressure on the land has grown. As a consequence, fallow periods on remaining arable areas have been shortened, in some places from over a decade to only one year. Between 1946 and 1968, the area cropped with natural fallow dropped from 17.6 percent to only 5.5 percent of land area, while continuously cropped land increased from zero to 17.3 percent of national area. Evidence from the GOTG's annual

agricultural survey suggests that this trend is continuing. In two important farming regions, Upper River and MacCarthy Island (South), virtually all the available farmland is being cultivated.

Decreasing fallow periods have led to loss of soil fertility and increased erosion. The extension of the area for agriculture competes with the growth of the livestock herd. The consequent degradation of rangeland is evidenced by the disappearance of perennial pasture species, particularly around easily accessible water sources, and their replacement with less valuable annual species. This is exacerbated by the uncontrolled burning of rangelands by farmers, herders and others, which reduces long-term forage availability and undermines forest regeneration. Burning appears to have increased in scope and intensity, and is a major focus of concern on the part of the GOTG. The encroachment of agriculture into traditional grazing areas has created serious conflicts between crop farmers and herders, as forage availability, particularly in the dry season, has decreased.

The ever-increasing demand for fuelwood and forestry products has led to a decline in the forest cover, and significant biodiversity loss. Although 43 percent of The Gambia is still classified as forested, approximately 70 percent of this is tree and shrub savanna, which has less than 10 percent tree cover. Closed forest and woodland savanna declined from 60.1 percent of land area in 1946 to an estimated 5.0 percent today. A recent study by the German technical assistance program suggests that these patterns will continue unless significant natural resource interventions are made.

The decline in biodiversity is another problem that must be addressed. Until two decades ago, a large segment of the Gambian population relied on hunting for protein. However, the heavy population pressure and loss of habitat has resulted in a considerable reduction in biodiversity, including the extinction of a number of major animal species that had been indigenous to the country. As a result of the diminished numbers of animals, there is currently very little commercialization of wildlife meat, at one time an important protein source for the rural population. There has also been a decline in avian habitats with implications for The Gambia's tourism potential.

The Sahelian drought has had a clearly negative impact on land use by reducing fresh water recharge within The Gambia and the watershed. The consequence has been salt water intrusion into the estuary and aquifer, which has rendered once productive rice lands sterile and destroyed important wetland habitats.

Some factors contributing to the degradation of the natural resource base stem from climatic changes beyond human control. The degradation has been exacerbated, however, by constraints on

effective resource management. These are discussed in greater detail in Annex Q. One constraint on natural resource management is that institutional, legal, and financial restrictions effectively discourage local communities from taking long-term responsibility for their resources. The Gambia Environmental Action Plan (GEAP) has emphasized the importance of decentralizing authority and empowering local communities, thus providing them incentive to properly manage their resources. This reflects a broader recognition in CILSS member countries that renewable natural resources can only be sustainably managed by local communities empowered through legislation, technical expertise, and improved information.

A specific example of constraints can be found in the collection and distribution of revenues from the cutting of wood. Licenses and permits to woodcutters are approved by the division-level Forest Committees, of which there are five in the country. Once a permit is sold to the tree-cutter, not only do villages have no right to refuse admission to their forest, but the bulk of the revenues that are collected go to the central Treasury with minimal amounts, if any, accruing to the communities. Consequently, communities have little vested incentive to conserve or protect the forest resources. At the same time, none of the revenues retained at the central level go directly to the Department of Forestry, the government unit empowered to encourage sustainable forestry management practices.

A similar situation exists for range resources. Lack of any monetary charge for access to range or pasture land encourages individuals and the community to exceed the carrying capacity of the land. No individual has any incentive to defer grazing or reduce his herd size, for example, because other producers will capture the benefits that result in terms of increased forage availability. The absence of revenues precludes investments by individuals and communities to protect or improve the range.

The communal nature of pasture and woodlands in The Gambia makes their burning difficult to control. While limited burning of the rural surface area has been an accepted cultural practice for generations, anecdotal evidence suggests that the area burned annually and the intensity of the burning have increased in recent decades. The instigators of bush fires include hunters, farmers who do not have the resources to plow thick vegetation, and herders who wish to generate the green offshoots which grow after burning. Burning eliminates the unpalatable (to ruminants) coarse grasses and thus permits new grass shoots to grow, but it simultaneously has negative environmental ramifications in that many grass species are not fire resistant and will over time permanently disappear.

Current formal and customary land tenure laws limit rural communities' incentives for sustainable management of farm, grazing and forest resources in their vicinity. Both forest and

grazing resources have been treated as open access resources under customary law. For the over-exploitation of forest and pasture resources to be reduced, communities must be legally empowered to manage the resources.

Encouraging communities to take control of their resources does not mean that government has no role in community resource management. Communities and the government are vital partners in the process and each performs legitimate and necessary functions. Government must strive to create the enabling policy and legislative framework for sustainable resource management, to arbitrate among competing interests, to enforce sanctions against abuses, to compile national statistics and to educate and inform the public. If control of resources is localized, communities will have incentive to fulfill their role of providing local surveillance of resources, a task which can be carried out much more efficiently at the local level.

To realize the objective of participatory resource management requires an enabling framework linking government to communities of resource users. Ideally, the framework would include:

- policies supporting the concept of community resource management (as the GEAP already does);
- legislation facilitating the devolution of authority over natural resources to local communities, including the control and disposal of revenues generated from these resources;
- a legally-binding Community Resource Management Agreement (CRMA);
- environmental education programs to explain the rights and obligations of local communities wishing to enter into CRMAs;
- technical expertise available to local communities, and NGOs acting on their behalf, to prepare the integrated resource management plan which forms an integral part of the CRMA;
- a designated GOTG official authorized to approve the management plan, and to sign the CRMA on behalf of the government; and
- models of financial management, including apportionment of benefits, accounting systems and investment possibilities, suitable for village communities.

While creating this enabling framework will be a long and difficult process, the important first step has been taken by

incorporating the concept of participatory resource management into the GEAP. The ANR Program will contribute to the process by:

- Strengthening the national policy and institutional framework governing natural resources; and
- Facilitating the creation of an enabling framework that will allow local communities to assume management control of, and benefit financially from, local land-based resources.

C. Relationship to Mission Strategy

1. Relationship to the USAID/Banjul Action Plan

The proposed ANR Program conforms to the USAID/Banjul Action Plan for 1991-95. The USAID/Banjul Program Goal is to accelerate the rate of real growth in per capita income in The Gambia. One of the Program Logframe Sub-goals is "increased rural income over the medium to long-term." The proposed ANR Program is the basic implementing vehicle for the achievement of one of the two Strategic Objectives for attaining that Mission Sub-goal, "Sustainable increases in the value of production on land under improved resource management practices." Without improved management of the natural resource base, especially farmland, rangeland, and forests, it will not be possible for rural incomes to increase. Improved natural resource practices under the ANR Program will also contribute to the Mission's second Strategic Objective "increased agricultural exports," which works towards increasing rural income in the short to medium-term (see Mission Logframe, Annex A).

2. Conformity of the Proposed Program to the Development Fund for Africa (DFA)

Under the DFA, non-project assistance can be used to support sectoral policy reform programs which promote longer-term development and growth at the sector level through the alleviation of policy constraints. DFA non-project assistance is used to support sector development objectives that are defined in terms of their impact on the poor, rather than, for example, on the basis of macroeconomic imbalances. The proposed ANR Program conforms with this intent.

To measure the people-level impact of the proposed assistance, in accordance with the DFA, a monitoring, evaluation, and reporting system is being put into place that will permit the tracking of economic and social indicators of performance. The ANR Program is in conformance with the DFA in a number of other important respects. Under the DFA, A.I.D.'s approach is to

support a sector program which the host government itself is committed to carrying out and which requires only targeted technical assistance and financial support. The ANR Program is in direct response to GOTG initiatives in the area of natural resources management, including the preparation of a national Environmental Action Plan. The ANR Program also reflects the DFA emphasis on working collaboratively with other donors and NGOs for maximum impact.

In conformity with DFA precepts, the proposed ANR Program is designed to ensure that women, who make up the bulk of The Gambia's farmers, are fully integrated into the development process. In fact, the success of the ANR Program will be directly linked to the involvement of women as women are highly dependent on common property resources for subsistence and income generation.

D. Relationship to GOTG Strategy

The proposed project is consistent with GOTG priorities. One area specifically targeted for investment under the Program for Sustained Development is enhanced protection of The Gambia's natural resource base. The establishment in 1990 of the Ministry of Natural Resources and the Environment (MNRE), together with the GOTG's preparation of the Gambia Environmental Action Plan (GEAP), clearly demonstrate that the GOTG is ready to tackle its environmental problems.

The GEAP is a national strategy on the environment designed to focus the efforts of the GOTG, donors, NGOs and the Gambian population. It analyzes The Gambia's environmental issues within a comprehensive, multi-sectoral framework and sets forth a long-term strategy for sustainable development, defined as development that does not degrade the natural environment. The GEAP is related to the National Environmental Action Plan process that was initially developed through the World Bank and is being implemented in a number of countries in Africa. The Gambian Environmental Action Plan is somewhat unique, however, in that it is largely a Gambian-led activity, rather than a donor-driven exercise.

The specific purposes of the GEAP are to:

- Provide a state-of-knowledge overview of the environmental conditions in the country;
- Identify, prioritize and, where possible, quantity environmental problems;
- Propose solutions to immediate environmental problems in the form of programs, projects and institutional and legislative reforms;

- Establish a clear indication of the GOTG's priority areas with respect to the environment;

- Establish a framework which provides coherent direction to the process of environmental monitoring; and

- Provide a framework for environmental policy dialogue within the country and with donors.

The GEAP process was initiated in 1991 with a workshop convened by the National Environment Management Council (NEMC). The preparation of the GEAP has been a multi-ministry effort coordinated by the Environment Unit in MNRE. When completed, it will constitute a thorough compilation of data in a number of areas, including watershed management, wildlife and protected areas, coastal erosion, forests, fisheries, water resources, range management, energy, environmental education, wetlands, and pollution.

The GEAP process is well underway, with technical and financial support from the United Nations Sudano-Sahelian Office (UNSO). The Action Plan (Volume 1 of the GEAP report) is scheduled to be submitted to the Cabinet in late 1992.[2] Volume 2, containing proposals for investments, will be released at a later date. The GOTG and international donors expect the GEAP to be an iterative process. Once both volumes are completed, which is anticipated to be in late 1992, the GOTG will host a donor's conference, at which it will present the GEAP report and discuss the roles of institutions, national human resource needs, and training and technical assistance requirements implicit in the document. At that round table, the GOTG will elicit donor support to carry out investments that are outlined in the GEAP. Further, the GOTG will use the conference to ask that future donor programs and projects be based on the priorities and principles outlined in the GEAP.

The proposed ANR Program conforms closely with the GOTG program outlined in the GEAP, which focuses on:

- Assisting and encouraging producers to adopt improved land and natural resource management practices;

- Development of effective government/local community partnership to ensure rational management of natural resources, including possibly the sharing of the management of land and resources with local communities and individuals;

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[2] The GEAP (volumes 1 and 2) was approved by Cabinet on July 21, 1992. As this Program Assistance Approval Document was written prior to the date of approval, the GEAP will be referred to as being in the approval process throughout this text.

- Institutional reforms aimed at improving inter-agency collaboration and the overall coordination of all environment-related agencies;

- Legislative changes to provide institutions with the statutory mandate and authority to execute monitoring and regulatory functions effectively;

- Implementation of appropriate taxes, tariffs and fines required to contribute to the sustainable management and protection of the environment;

- Environmental education aimed at increasing the environmental sensitivity of the public; and

- The collection and analysis of environmental data which is required for proper environmental management planning and decision-making.

In addition, the Program Budgeting System (PBS) component of the ANR Program reflects clearly the GOTG's stated desire to continue and expand that program and to interface it with the medium-term Public Expenditure Program (PEP) which is being implemented under the World Bank's Second Structural Adjustment Loan. Discussions are currently underway between the GOTG and the World Bank to expand the PBS System government-wide as part of the PEP development effort.

E. Relationship to Other AID and Donor Projects

1. Relationship to Earlier USAID Projects

USAID/Banjul has supported the development of the Gambia's agriculture and natural resources sectors for a number of years. For example, the **Soil and Water Management Project**, a 13 year, $5 million project which terminated in June 1991, established a highly professional Soil and Water Management Unit within the Ministry of Agriculture (MOA). This unit has tested and applied soil erosion and land reclamation techniques of direct and immediate economic value to Gambian farmers. By the close of the project, it had directly assisted 78 villages and 20,600 farmers, 90 percent of whom were women. The techniques promoted, which included the construction of water retention and anti-salinity structures in flood plains and contour berms in the uplands, helped stabilize agricultural production by reclaiming rice land and controlling erosion. It effectively increased total acreage and yields and permitted the planting of two crops per season (rice followed by vegetables), rather than one. The **Soil and Water Management Unit (SWMU)** is now widely known to farmers for its technical competence in producing immediate, visible benefits and has amassed enough requests from villages to keep it busy for the next six years. Lessons from the SWMU Project's success,

including the mechanics of mobilizing villagers for conservation management, will be incorporated into the proposed ANR Program.

The $16.3 million **Gambia Agricultural Research and Diversification (GARD)** project, which began in FY 1986 and will end in mid-1992, has improved the ability of the MOA's Department of Agricultural Research to plan and implement applied, on-farm agricultural research. The GARD project supported the timely collection and analysis of agricultural data, and the planning and implementation of a ministry-wide program budgeting system. It also identified a number of improved agricultural practices and crop varieties, and worked successfully with NGOs to disseminate them. These efforts included the introduction of short cycle (drought-resistant) certified rice seed and drought-tolerant sesame seed; the seeding of rice in rows to reduce weeding time; the use of antifungal dust on groundnut seeds to increase plant density; and improved oil-seed presses. The ANR Program will build upon the experience of the GARD project in developing a Program Based Budgeting system for MOA in order to introduce a similar system to the MNRE. In addition, the proposed Program will continue the successful GARD approach of using NGOs to disseminate technologies.

The **Mixed Farming and Resource Management Project**, which ended in 1986, focused on a number of areas of relevance to the proposed ANR Program. These included: land use classification, involving a major aerial photography effort; grazing area development and management; improved crop and forage production (including deferred grazing studies and research on the use of crop residues as forage); and strengthening the planning and evaluation capacity of the MOA's Department of Planning.

The **Gambia Forestry Project**, which was completed in March of 1986, sought to increase the efficiency of the production and utilization of wood and wood products. The experience of this project clearly demonstrated that: (1) there is little incentive to create woodlots as long as the individual does not have to pay the true economic costs of harvesting wood from the natural forest; and (2) local communities must perceive an "ownership" of the wood resource, have clear control over it, and reap the benefits of planting in order to be motivated to protect and nurture it. These lessons have been incorporated into the design of the proposed ANR Program.

2. Relationship to Ongoing AID Projects

USAID/Banjul is currently supporting the development of a **Management Plan for Kiang West National Park (KWNP)**. A prior Assessment (1990) and initial drafts of the plan have been prepared under the leadership of the Biodiversity Support Program, a consortium of NGOs led by the World Wildlife Fund (WWF), with funding from the AID/W Natural Resources Management

Support Project through USAID/Banjul. The management plan is scheduled to be completed by November 1992 and will provide the broad outlines of support for communities bordering on the forest. This plan will be drawn upon under the proposed ANR Program.

Part of the financing of this effort will come from the monetization of PL 480 Title II assistance. In 1986, USAID/Banjul began transferring to the GOTG approximately $6 million in rice as part of the PL-480 Title II Section 206 Program. In May, 1990, 9 million dalasis of these rice sales were made available to the Department of Wildlife Conservation for financing works and activities to protect and enhance the natural resource base of KWNP, and to support sustainable productivity in agriculture, animal husbandry and forestry in villages bordering the park. Disbursement of these funds is currently taking place.

ANR Program reforms dealing with the Livestock Marketing Board parallel efforts by other USAID programs aimed at encouraging the elimination of subsidies to public enterprises and their privatization. These have included the **African Economic Policy Reform Program** (AEPRP, 1986-90), the **Financial and Private Enterprise Program** (FAPE, 1991-96), and the **Financial Sector Restructuring Program** (FSR, 1991-94).

The **Peace Corps** program in The Gambia provides for approximately 55 Peace Corps volunteers working in three areas: forestry, agriculture, and education. As part of a six year effort, environmental education will become a major thrust in each of these primary areas. All incoming volunteers will receive training in environmental education and environmental education activities will be explicitly built into their programs. This effort will benefit from support of the proposed joint **Peace Corps/AID Africa Bureau Natural Resources Management Initiative** (FY 1992-95).[3] Over the next two years, the Peace Corps anticipates placing 20 forestry volunteers and approximately 15 agriculture volunteers in the field. These volunteers will incorporate informal environmental education activities into their programs. A volunteer will also be placed in each of the four education resource centers operated by the Ministry of Education. Peace Corps education volunteers will

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[3] Natural Resources Management Initiative provides funding to expand the Peace Corps' activities in natural resources through buy-ins to the existing Peace Corps/USAID Forest Resource Management II Participating Agency Service Agreement. The Gambia is one of the focus countries in the NRM Initiative, which would provide funding for in-service training of volunteers and their counterparts, project planning and management, and material support.

deliver formal environmental education lessons in schools, as well as work with their Gambian colleagues to develop appropriate environmental education curriculum and activities. Finally, two volunteers will be assigned to the environmental education program of the MNRE Wildlife Department. The field activities envisioned in the ANR Program will rely upon these Peace Corps volunteers as catalysts for local development initiatives.

3. Relationship to Other Donor Projects

The ANR Program is consistent with, and will be enhanced by, the support of other donors to the Gambian agriculture and natural resources sectors. A number of bilateral donors, including Germany, Denmark, the Netherlands, and Japan support the ANR sector. Multilateral donors to the sector include United Nations agencies (FAO, UNSO, IFAD, & UNDP), the World Bank, the African Development Bank (ADB). the Islamic Development Bank (IDB) and the European Community (EC). In 1990, total project assistance to the ANR sector was $9 million. A number of these donors have established long relationships with individual departments or units of the Ministry of Agriculture and the Ministry of Water Resources, Forestry and Fisheries (the predecessor Ministry to MNRE).

The **United Nations Sudano-Sahelian Office (UNSO)** is supporting the MNRE Environment Unit and the preparation of the GEAP with a long-term technical advisor. The UNSO will continue its support to MNRE through 1997 under a $1.5 million project. ANR Program activities will be designed to ensure close cooperation with the UNSO effort.

The German technical assistance program, the GTZ, has provided support to the Forestry Department since 1980 under the **Gambian-German Forestry Project (GGFP)**. This project focuses on strengthening the Department of Forestry and improving management of natural forest lands in The Gambia. Since 1989, and until 1993, the project will focus on the introduction of community forestry activities on a pilot basis. The GTZ field staff were very helpful during the design of the ANR Program and close coordination with them during project implementation will be critical to the success of the proposed ANR Program.

The substantial field-level experience of the GTZ is of particular relevance to the ANR Program. Prior to undertaking the aforementioned community forestry management pilot activities, the GGFP did extensive technical and social research which brought to the surface many of the issues that will be encountered by the USAID project. In brief, the GTZ approach to community forestry management involves total participation and information sharing with villages interested in managing forest lands. With the assistance of Gambian and German foresters, communities designate common lands and work to develop a

comprehensive, long-term management plan for their use. Upon the successful development of this management agreement, which is executed with the assistance of various technical departments in addition to forestry, the GOTG cedes absolute use rights currently denied communities by the Forestry Act and regulations of 1977. Early indications show a very enthusiastic response on the part of the beneficiaries.

The Community Resource Management Agreements (CRMAs) proposed under the ANR Program will substantially benefit from these early experiences. Other areas of collaboration will be in the training sector, as the GGFP field sites, both for community forestry and natural forest management, provide ideal training sites for future communities and village participants in the ANR Program.

The recent experience of the **UNDP-funded Rangeland and Water Development Project** in Dankunku and Niamina West districts will serve as a model for range management and livestock production efforts under the proposed ANR Program. This project (1986-92) was designed to increase production, and to sustain the higher levels of production achieved. It involved 121 livestock owners, organized into an association, and some 8,000 ha of degraded rangelands on the South Bank of the Gambia River. Control of the land was obtained from the District by means of a long-term lease.

The main management improvements introduced were (a) control of range fires, mainly through education and eventually social control; (b) provision of adequate, properly distributed water supplies; and (c) deferred grazing. For the latter, 3,150 ha were fenced off at an average cost of $2.65/ha. The watering system included three boreholes, pumps and a pipe network, at a total construction cost of $84,000.

Critical to the success of the scheme, which is currently (1992) reported to be self-financing, were its financial aspects. A new dairy plant greatly increased the value added from the higher milk production through the production and marketing of yogurt, cheese and other products. The owners' association was also able to charge and retain grazing fees imposed on the owners of seasonal migrant cattle. The revenue is being used for investments in improved range and livestock management. The cattle head tax, however, is still being collected and retained by the Area (District) Council as it is elsewhere in the country.

The Dankunku project has achieved and sustained higher production (from 8,000 to 10,000 head of cattle), and greatly increased farmers' incomes. There has also been spontaneous diffusion of some of the improved grazing practices in the vicinity of the project area. Within the scheme, thanks to higher productivity of the land, some farmers have become cattle

owners for the first time.

Non-governmental organizations (NGOs) have contributed a substantial amount to the development of The Gambia, and in particular to the rural sector. Eight major NGOs, with a combined staff of 700 persons, have activities in the rural areas. Together they provided over $4 million in development assistance in 1990.

The **World Bank's** $28 million, five-year loan to the MOA for improving the agricultural extension service ends in 1992. The Preparation Report for a follow-on project, entitled Agricultural Support Services and Natural Resources Management, was completed in May 1991, and proposed continued support to the MOA Research, Extension and Communications Departments. An Appraisal Mission was in The Gambia in April and May 1992 in order to finalize the project design. According to this Mission, the next project will probably continue most of the activities of the previous phase (known as ADP II), although not necessarily at the same levels of funding. The natural resources component proposed in the Preparation Report, including the remote-sensing surveys, will not be included and no increases in MOA staff are foreseen. A flexible form of the Training and Visit (T&V) system of agricultural extension will be pursued.[4] The World Bank Mission foresees no potential conflict between this form of extension and the conclusion of Community Resource Management Agreements, as proposed in the GEAP and under the ANR Program.

Under the **World Bank's Second Structural Adjustment Loan**, The Gambia has made a commitment to prepare a medium-term **Public Expenditure Program (PEP)** which would enable the GOTG to set priorities among and within Ministries. The World Bank program for 1990/91 through 1992/93 specified that PEPs would be prepared for the Ministries of Education, Health, Works, and Agriculture, and soon for the MNRE as well. Progress in this area has been slower than anticipated, in large part due to the absence of baseline budgetary information which could be provided by a Program Budgeting System. By supporting the Program Budgeting system, the ANR Program will contribute to this implementation of the PEP.

III. PROGRAM DESCRIPTION

A. Program Goal

The Goal of the Agriculture and Natural Resources (ANR) Program is **to increase rural incomes**. This goal statement is

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[4] This information is the most current available at the tine of designing this PAAD.

also one of two sub-goals to USAID/Banjul's Program Logframe. The indicator of goal achievement will be an increase in rural incomes from crop, livestock and forest products. This goal is consistent with USAID/Banjul's Action Program and the stated objectives of the GOTG.

B. Program Purpose

The Purpose of the ANR Program is to achieve **sustainable increases in the value of production on land under improved resource management practices**. This purpose statement corresponds to Strategic Objective 3 of the Mission's Program Logframe.

The project has two Sub-purposes. These are:

- Establishment of a policy and regulatory framework that is conducive to the adoption of improved natural resource management practices; and

- Increased adoption of field-level natural resource planning and improved natural resource management practices.

C. Program Strategy

The proposed Agriculture and Natural Resources (ANR) Program will be a five year, $22.5 million effort funded under the Development Fund for Africa (DFA). It will involve policy-based, non-project assistance (NPA), supported by project assistance. The NPA component of the project will total approximately $10 million. These funds will be provided to the Government of The Gambia (GOTG) for debt repayment, conditioned upon policy changes by the GOTG that will lead to improved management of The Gambia's natural resources. The proposed NPA conditionalities are detailed in Section D, Non-Project Assistance.

The ANR Program will also include $12.5 million worth of project assistance under the ANR Support Project. These funds will be used to finance technical assistance, commodity support, training, and field-level activities aimed at supporting implementation of the policy agenda.

The GOTG lead implementing agency will be the Ministry of Natural Resources and Environment (MNRE). The Institutional Analysis (Annex D) discusses the issue of institutional placement of the ANR Program.

By promoting the effective management and sustainable use of natural resources, the ANR Program will provide significant long-run benefits to The Gambia's rural poor. The policy reforms proposed will facilitate the transfer of responsibility over some

forest and pasture lands from the national to the local level. This, in turn, will provide incentives for members of the rural communities to protect and improve the resource base. The ANR Support project will promote the introduction of resource-conserving technologies. These investments will protect the viability of the cropland, forest, and pasture, and thus increase the long-term wealth of these communities.

D. Non-project Assistance

The Policy Reform Agenda is designed to achieve a series of improvements in the basic policy and institutional framework that governs the management of natural resources in The Gambia. It promotes the implementation of these improvements by means of eleven Conditionalities which, if met, will trigger the disbursement of five tranches of financial assistance.

The eleven Conditionalities included in the design of the ANR Program are clearly definable and implementable; are supported by key GOTG agencies (notably the MNRE); are likely to have a substantial impact or far-reaching implications; and are within the manageable interest of the USAID/Banjul Mission. A rapid overview of the Conditionalities as grouped in chronological order by due dates of Tranche disbursements is provided in Table 1 on the following page. The Conditionalities, along with their rationale and the interim steps towards their fulfillment are discussed in detail in Annex B and summarized in the Policy Matrix which is attached to Annex B.

The Conditionalities pertain to two principal themes: the strengthening of the national policy and institutional framework governing natural resources; and the creation of an enabling framework that will allow local communities to assume management control of, and benefit financially from, local land-based resources.

Strengthening the National Policy and Institutional Framework

The strengthening of the national policy and institutional framework is to be promoted by ten of the eleven Conditionalities identified in the ANR Program. More specifically, this Theme is designed to foster: (1) the completion, approval, and implementation of the Gambian Environmental Action Plan (GEAP); (2) the rationalization of funding and revenue-generation for natural resources management; and (3) the liberalization of natural resources markets.

a. Completion, Approval, and Implementation of the GEAP

The ANR Program supports the completion, Cabinet approval

Table 1. Summary of Conditionalities Arranged by Tranches. The Numbering of the Conditionalities Refers to the Order in which they are discussed in Annex B.

TRANCHE		CONDITIONALITIES	AMOUNT
No. 1 Dec. 1992		Standard conditions precedent for non-project assistance	$2,000,000
	1.	Cabinet approves the GEAP	
	2.	Cabinet designates a body with the authority to coordinate the implementation of the GEAP	
	4.	MOA and MNRE develop action plans for implementation of the PBS, which will include assignment of required staff and, for MOA, evidence of a 1991/92 annual financial report	
	10.	The Livestock Marketing Act of 1975 is repealed by Parliament	
No. 2 July 1993	3.	GOTG has completed a GEAP investment program, reviewed it at a sectoral Donors' conference, and included initial projects in the FY 1993-94 Public Investment Program (PIP)	$2,000,000
	7.	GOTG makes a committment to study: (i) present and projected forest and park revenue flows; (ii) options for the retention of a portion of revenues by the resource-generating sector (including line agencies, independent boards, and communities); (iii) personnel and operational expenditures needed by GOTG to implement the natural resources management component of the GEAP	
No. 3 July 1994	5.	Based on a multi-year analysis, develop the FY 1994/95 recurrent budgets for specific MOA and MNRE programs	$1,000,000
	8.	Forestry fees and royalties are revised to more accurately reflect true costs, and schedule is gazetted	
	9.	Written evidence that the GOTG has undertaken and reviewed the studies specified in Conditionality #7, developed an action plan, and begun implementation of the appropriate recommendations.	
No. 4 July 1995	6.	Publication of annual financial reports by MOA and MNRE which analyze FY 94/95 expenditures against originally budgeted amounts, make recommendations for ongoing budget process, and include results of effort at establishing program evaluation	$2,000,000
No. 5 July 1996	11.	Legislation concerning forestry, wildlife, livestock, lands and other natural resources and relevant Regulations are revised in order to enable local communities to assume management responsibility for these resources, subject to government monitoring	$3,000,000

and implementation of the GEAP because of the central role that this Plan will play in the conservation, rehabilitation and better use of natural resources in The Gambia. This is the rationale behind Conditionality 1.

Conditionality 1: Cabinet approves the GEAP (December 1992)

After the approval by the Cabinet of the GEAP, program conditionality will concentrate on the implementation of the GEAP by means of two conditionalities:

Conditionality 2: Cabinet designates a body with the authority to coordinate the implementation of the GEAP (December 1992)

The rationale for this Conditionality is that the designation of a properly mandated national coordinating agency will be crucial to the implementation of the GEAP and thereby the ANR Program. The draft GEAP indicates that the inter-ministerial National Environmental Management Council (NEMC) will have the broad coordinating role, but that operationally this role will be played by its Secretariat, the MNRE/Environment Unit. This operational mandate will need to be spelled out in detail, particularly with regard to the arbitration of inter-ministerial conflicts and resolution of overlapping jurisdictions.

Conditionality 3: GOTG completes a GEAP investment program, reviews it at a sectoral Donors' conference, and includes initial projects in the FY 1993/94 Public Investment Program (PIP) (July 1993)

The intent of this conditionality is to focus the GEAP investment program and integrate it with the GOTG's PIP. Experience in many countries has shown that inter-sectoral, inter-ministerial plans have a tendency to remain general statements of intentions, or to have insufficiently detailed and prioritized investment components. There is also the risk that investment planning for the GEAP may develop independently of the normal public investment procedure, or not take sufficiently into account sectoral investment priorities of the government or the priorities of donors.

b. Rationalization of funding and revenue-generation for natural resources management

Conditionalities 4 through 6 are intended to promote the rationalization of the budgeting systems of the two main Ministries, MOA and MNRE, involved in the implementation of the GEAP and of the ANR Program. The Conditionalities ensure that GOTG activities in the natural resources sector are adequately funded, and this funding is used effectively, given the limited personnel and material resources available.

Conditionalities 7 through 9 are designed to study present and projected forest and park revenue flows, and develop options for the retention of a portion of revenues by the resource-generating sector. This study will be followed by an Action Plan for implementation of the appropriate recommendations. The revision of forestry fees and royalties is also subject to Conditionality 8. These fees and royalties need to be revised to reflect more realistically the replacement, social and other costs of forest products.

Improved budgeting systems

Conditionality 4: MOA and MNRE develop action plans for implementation of the PBS, which will include assignment of required staff and, for MOA, evidence of a 1991/92 annual financial report (December 1992)

The Program Budget System (PBS) is a management tool that enables a ministry and its departments to plan, budget and monitor program expenditures more rationally, and ultimately to evaluate the impact of those expenditures. The intent of PBS is also to prioritize program activities and hence to improve resource allocation. The intent of Conditionality 4 is to obtain a commitment from MOA to continue the development of the PBS system introduced under the USAID GARD Project and, from MNRE, to introduce the PBS system. This commitment would take the form of a detailed implementation schedule and agreement on the assignment of senior staff from within the Ministries to oversee the implementation of the PBS.

Conditionality 5: Based on a multi-year analysis, develop the FY 1994/95 recurrent budgets for specific MOA and MNRE programs (July 1994)

The rationale for this Conditionality is that, improvements in the budgeting system will be meaningless unless the level of funding for MOA and MNRE is adjusted to reflect the higher priority assigned to natural resources under GEAP. Given the importance of agriculture in the Gambian economy, the severity of the environmental problems facing the country, and the emphasis

placed by the Program for Sustained Development on protecting the natural resource base, USAID believes that the recurrent budget for key programs within the MOA and MNRE is inadequate. In designing the ANR Program, the limitations on effective action due to the lack of adequate manpower in key areas and the lack of operational resources within these two ministries was manifest.

Conditionality 6: Publication of annual financial reports by MOA and MNRE which analyze FY 1994/95 expenditures against originally budgeted amounts, make recommendations for the ongoing budget process, and include results of effort at establishing program evaluation (July 1995)

The intent of Conditionality 6 is to confirm that the PBS is being applied as a management tool by ministry management, to monitor not only the efficiency of the budgeting process, but also the efficiency of the government services delivered. The proposed program evaluation will be a pilot effort, supported by short-term project funded technical assistance. The evaluation procedures used should be relatively simple cost-effectiveness measurements, such as the cost of reaching so many farmers with extension messages or of collecting a given amount of forest revenue.

Improved revenue generation

Conditionality 7: The GOTG makes a committment to study: (i) present and projected forest and park revenue flows; (ii) options for the retention of a portion of revenues by the resource-generating sector (including line agencies, independent boards, and communities); (iii) personnel and operational expenditures needed by GOTG to implement the natural resources management component of the GEAP (July 1993)

The intent of this Conditionality is to study present and projected forest and park revenue flows, and develop options for the retention of a portion of revenues by the resource-generating sector.

Conditionality 8: Forestry fees and royalties are revised to more accurately reflect true costs, and schedule is gazetted (July 1994)

Realistic pricing of natural resources, so as to reflect true replacement, social and other costs, is a form of resource management in that it allows market forces to reveal growing scarcities, to curb excessive demand, to redirect products towards more efficient end-uses, and to stimulate investment in resource development. A formal revision of fees and royalties, preceded by the necessary economic analyses, is needed to

formalize and announce such market signals.

Conditionality 9: The GOTG undertakes and reviews the studies specified in Conditionality 7, develops an action plan and begins implementation of the appropriate recommendations (July 1994)

The intent of this Conditionality is to develop an Action Plan for implementation of the appropriate options under Conditionality 7.

c. Liberalization of Natural Resource Markets

Under the Economic Recovery Program and the Program for Sustained Development, the Gambia has already made great progress in establishing a free market economy. Thus, under the ANR Program only one Conditionality was deemed necessary to remove an economic constraint in the natural resources sector:

Conditionality 10: The Livestock Marketing Act of 1975 is repealed by Parliament (October 1992)

Repeal of this Act will have no immediate, far-reaching impact on natural resources, but it is a relatively simple action that would remove a potential obstacle to the free operation of markets. This, in turn, has potential repercussions on rural incomes. Repeal of the Act will eliminate the cattle import/export monopoly held by the Livestock Marketing Board (LMB, which would be abolished), and it is hoped that repeal of the Act will expedite the privatization of the Abuko abattoir., which is currently owned and managed by the LMB. Repeal of the Act thus also lends itself to establishing an interim legal status for the abattoir, pending full privatization.

Facilitating the Creation of an Enabling framework that will allow local communities to assume management control of, and benefit financially from, local land-based resources

Under this Theme, there is one major Conditionality which has far-reaching implications. It concerns the revision of

natural resources legislation (forestry, wildlife, livestock, lands, agriculture, and water resources) so as to create the enabling legal framework for local control and management of natural resources:

Conditionality 11: Legislation concerning forestry, wildlife, livestock, lands and other natural resources and relevant Regulations are revised in order to enable local communities to assume management responsibility for these resources, subject to government monitoring (July 1996)

The empowerment of local communities to participate in the protection, conservation and rehabilitation of natural resources is a central thrust of the ANR Program and an important principle espoused by the GEAP. Local control of natural resources also implies more direct financial benefits for these communities, thereby creating a greater vested interest in the maintenance of resources. Fulfillment of this Conditionality is deferred until Year 4 of the Program because it will have to be preceded by pilot experiences in local resource management, and by careful evaluation of these experiences. Legislation should be revised on the basis of adequate information on potential risks, safeguards, current institutional blockages, financial implications, and of the rights and obligations of both the communities and the government under Community Resource Management Agreements. Support for these pilot experiences is a key element of the ANR Program.

E. ANR Support Project Activities/Outputs

The ANR Support Project component of the overall ANR Program also provides assistance to the GOTG in addressing both Program themes. Project activities will be supported through an institutional contract, which will provide five **long-term technical advisors**:

- a Senior Policy Advisor/Natural Resources Planner (4 person-years);
- a Grants Administrator who will coordinate the NGO grants program (4 person-years);
- a Program Budgeting System Advisor (2.5 person-years);
- an Environmental Education Specialist (2 person-years); and
- a Resource Inventory Specialist (1 person-year).

Up to 36 person-months of short-term TA will be provided for policy studies and field-level support, 10 person-months of

short-term TA in environmental education, and 18 person-months for information systems. The Support Project component will also provide substantial technical training opportunities, including funding of degree training in environmentally-related fields, and substantial short-term, third country, and in-country training.

As discussed above, the ANR Program has been structured to:

- **Strengthen the national policy and institutional framework governing natural resources; and**
- **Create an enabling framework that will allow local communities to assume management control of, and benefit financially from, local land-based resources.**

Support for Strengthening the National Policy and Institutional Framework

In an effort to strengthen the GOTG's natural resource management capacity, the ANR Support Project will provide long- and short-term technical assistance, training, and commodity support to the GOTG aimed at:

- Strengthening MNRE's analysis and policy formulation capacity;
- Improving MNRE's environmental monitoring capacity;
- Expanding the use of Program Budgeting in both MOA and MNRE; and
- Improving coordination of environmental education efforts.
- Supporting the Peace Corps Natural Resource/ Environmental Education Program.
- Increasing understanding of land tenure issues affecting natural resource management in The Gambia.

a. Strengthening the Capacity of the MNRE to coordinate Natural Resources Management

The ANR Program will provide substantial long- and short-term technical assistance, training, and other resources designed to strengthen the capacity of the MNRE to coordinate natural resources management and to analyze and formulate environmental policies. The nucleus of this assistance will be the provision, through an institutional contract, of a Senior Policy Advisor/Natural Resource Planner. This will be a four-year level

of effort. Within the structure of the MNRE, this individual will be responsible to the Permanent Secretary of MNRE, while working on a day-to-day basis with the Principal Planner, Principal Environmental Officer, and the MNRE Department Heads.

Responsibilities of the Senior Policy Advisor will encompass policy development, implementation of an analytical agenda, and coordination of studies. This will include:

- Analysis of available information relating to natural resources management throughout the country to determine the adequacy of existing policy, the regulatory framework, and enforcement, as well as to identify weaknesses/strengths in carrying out management activities.

- Formulation of policies aimed at improving natural resource management.

- Identification of analytical needs for policy formulation or legislative reform, and for analyzing the impact of policies; preparing scopes of work for required studies; coordinating their implementation (by various MNRE units and staff from other ministries with ANR Program-funded technical assistance and operational support); evaluating the results and formally reporting the findings (and policy implications) to the Permanent Secretary; and supervising expatriate technical advisors and ensuring that their performance meets the terms of their scopes of work.

- Participating in the on-going policy dialogue surrounding natural resources issues, working with the MNRE Planning unit to identify and propose for consideration additional areas for assistance/policy reform.

- Coordinating the delivery of technical assistance, training and commodity support to the GOTG (MNRE and some units within MOA) aimed at improving Gambian capacity to conduct policy analysis;

- Assisting the MNRE in monitoring progress towards meeting the conditionalities of the ANR Program; and

- Serving as Chief of Party for the institutional contract (including broad administrative aspects of institutional contract management).

In addition to the services of the Senior Policy Advisor, the ANR Support Project will provide the MNRE with:

- Short-term technical assistance;

- Short-term, third country, and in-country training;
- Limited commodity support (for example, computer and office equipment for MNRE and the technical advisors);
- Funding for policy studies.

In addition, the Mission will consider possible buy-ins to centrally-funded AID projects over the life of the project.

b. Improving MNRE's Information Systems and Monitoring

Policy development in natural resources has been constrained by a dearth of available data. Aerial photography and partial resource inventories were completed in 1972 and 1980, but the on-going degradation occurring since then has not been assessed. The extent and severity of the annual range/forest burning, fuelwood consumption, soil erosion and fallow rates are but a few areas in which a lack of current information constrains policy analysis.

The information constraint for natural resources and the environment has been explicitly recognized in both the GEAP and the Program for Sustained Development. The MNRE has identified the improvement of data collection and availability as one of the aims of its natural resource management program, one of the three priority programs in the GEAP. With this end in mind, the MNRE has secured the assistance of a natural resource specialist and an environmental information systems specialist, funded by UNSO, to develop a prioritized list of data collection areas and a suggested framework for an environmental system in the MNRE. These studies and recommendations are due to be completed by August, 1992.

The ANR Support Project will address the natural resource information constraint by supporting the establishment of an environmental information system, an aerial survey and interpretation, and the collection of natural resource data in priority areas.

Much of the data necessary for natural resource policy analysis is collected but not readily available. The ANR Program's support for an environmental information system will assist in making data readily available for policy analysis. Establishment of the system will involve short-term, in-country, and diploma/certificate training, short-term and long-term technical assistance, and the purchase of commodities such as computers and storage materials.

ANR support for an aerial survey and interpretation will consist of long- and short-term technical assistance, commodities (principally photography costs), and training. The aerial survey

will be closely coordinated with the Department of Lands and Surveys (who has the responsibility for assessing and approving new requests for aerial surveys), and relevant technical departments. Given their extensive experience in conducting resource use inventories (the Forestry Department, along with the GGFP, carried out the land use inventory of 1980), it is expected that the Forestry Department would be the lead department involved in the technical interpretation of aerial survey data.

The priority areas for special data collection studies are as yet tentative, and will be revised based on the results of the data needs assessment currently in progress. Support for these special data collection efforts will be in the form of limited commodities, and short-term technical assistance.

A Resource Inventory Specialist will be provided to the MNRE for a total of 18 person months, including 12 months as a resident advisor. This individual's primary role would be to coordinate, in close association with the Forestry Department, the development of a resource use inventory using results from the aerial survey. The 12 month period of residence would not begin until the aerial photography is completed. In addition, this consultant would assist in the establishment of an environmental information system in the MNRE. In this second task, he/she will work closely with the Environment Officer responsible for information systems and the Documentalist supported by UNSO in the Documentation Center. It is anticipated that the Policy Advisor/Resource Planner would also be closely involved with these target data collection studies.

Additional detail and budgets for the MNRE's information system and monitoring is included in Annex N.

c. Support for Improved Public Sector Budgeting (PBS)

Continued support for the PBS is proposed under the ANR Program, with the objective of institutionalizing the PBS within the MOA and extending it to the MNRE. To achieve this objective, the ANR Program will cover, through the institutional contract, the costs of a long term PBS Advisor (2.5 person-years), approximately 5 person-months of short-term TA, in-country training, commodities (e.g. computer equipment and software), and miscellaneous office supplies.

The objectives of this long-term assistance in PBS will be:

- To sustain and completely institutionalize the PBS system in the MOA and to extend it to the MNRE;
- To ensure that the expenditure monitoring component of the PBS is operational and that MOA and MNRE senior staff know how to use this new knowledge for improved

planning and budgeting;

- To modify the PBS system to ensure that it serves as input into the process by which the official MOA and MNRE budgets are established; and

- To continue the development of the PBS system to provide information to the management staff of the MOA. This will enable them to measure the cost effectiveness of various programs and activities and the results should be reflected in decisions on future funding levels.

Efforts to date at implementing the PBS within the MOA (with funding from the GARD Project) have been hampered by MOA staff turnover. The GARD-funded PBS advisor departed post on March 30, 1992, following the completion of his two year tour. Discussions are underway which would bring this advisor back to Banjul under World Bank funding to provide technical assistance on the extension of the PBS throughout the GOTG under the auspices of the Public Expenditure Program (PEP).

In the meantime, USAID/Banjul plans a 6 month no-cost extension to the life of the GARD project. This will permit GARD financing of a TDY by this advisor during the remainder of 1992. This one-month TDY will begin in July 1992, during which the advisor will: (1) publish the final FY 1991-92 expenditure reports generated by the MOA's PBS system; (2) provide training to MOA departmental accounts clerks to review data entry procedures; and (3) identify computer needs and plan for the extension of the PBS system to the MNRE.

A second TDY, with funding outside of the ANR Program, is tentatively planned for October. The purpose of this trip will be to: (1) ensure that the monthly financial reports are being prepared and distributed to departments; (2) coordinate initial FY 1993/94 budget planning activities; and (3) conduct a one day workshop for department directors for the MOA (and perhaps for the MNRE).

d. Environmental Education

The ANR Support Project will provide long- and short-term assistance in environmental education. This assistance will include:

- An initial 2 person-months of assistance by a general environmental education specialist to outline an environmental education program;

- Approximately 24 person-months of long term assistance to assist the MNRE to implement its environmental education program;

- Approximately 8 person-months of additional short-term technical assistance; and

- Support to the Peace Corps Natural Resource/Environmental Education program.

During the initial 2 month TDY, a consultant would, among other tasks,: (a) assess the needs and potential of various environmental education activities/proposals; (b) outline an environmental education program, taking into account available human and financial resources, that could be implemented by the MNRE environmental education staff with the assistance of the long-term environmental education advisor; and (c) prepare a detailed scope of work for a long-term advisor, with clear specifications as to the most appropriate qualifications needed to implement the proposed environmental education program.

The long-term advisor will be provided by the institutional contractor. This individual would be responsible for working with the MNRE Environment Unit staff that have been charged with environmental education, and coordinating with other GOTG agencies and institutions. Specific tasks of this long-term advisor might include:

- Providing guidance in the creation of an Environmental Education Resource Center at MNRE which would collect, adapt, reproduce, and distribute environmental education materials for use by other GOTG agencies, NGOs, teachers and extension agents;

- Assisting GOTG agencies and other groups in the design of environmental education programs and activities, and in the preparation of proposals for external funding;

- Reviewing and, if necessary, proposing changes to the curricula at the primary, secondary, technical and diploma levels aimed to foster greater environmental awareness;

- Preparing instructional materials and visual aids for public awareness campaigns, including newspaper articles, radio programs, extension messages, and newsletters;

- Identifying in-service training needs, and designing and implementing in-service training programs for teachers, government and NGO staff, community leaders, and others;

- Planning conferences, seminars, and workshops on selected environmental topics at the national level; and

- Working with NGOs to develop non-formal environmental education programs, particularly within the context of

the preparation of Community Resource Management Agreements;

An evaluation of the effectiveness of the environmental education component will be undertaken before the end of the two-year tour of the environmental education advisor. Based on the results of that evaluation, and the availability of funds, consideration will be given to extending this position.

In addition to the long-term TA, approximately 8 person-months of additional short-term technical assistance is envisioned (over and above the initial needs assessment). This will include specialized technical assistance in areas in which the long-term advisor does not have sufficient expertise (perhaps workshop specialists, media experts, or experts in curriculum design for example) and follow-up visits by the long-term advisor in the latter years of the project.

e. OYB Transfer to the Peace Corps Natural Resource/Environmental Education Program

The Peace Corps is initiating a major Natural Resource/ Environmental Education Program as part of the joint Peace Corps/USAID Natural Resources Management Initiative. The Gambia Peace Corps program provides for approximately 55 Peace Corps Volunteers, working in three primary areas: forestry, agriculture, and education. As part of a six year effort, environmental education will become a major thrust in each of these primary areas. All incoming volunteers will receive training in environmental education, and environmental education activities will be explicitly built into their programs. Over the next two years, the Peace Corps anticipates placing 20 forestry volunteers and approximately 15 agriculture volunteers. These volunteers will incorporate informal environmental education activities into their programs. Education volunteers will deliver formal environmental education lessons in classrooms, as well as work with their Gambian collegues to develop appropriate environmental education lessons. A volunteer will also be placed in each of the four education resource centers operated by the Ministry of Education. Finally, two volunteers will be assigned to the environmental education program of the MNRE Wildlife Department.

These Peace Corps Volunteers will serve as an important resource for the ANR Support Project, supplementing the technical resources of both the GOTG line ministries and the NGOs. Approximately $200,000 will, therefore, be provided to support this Peace Corps initiative. These funds will be used for environmental education and related activities developed within the communities hosting PCVs.

f. Implementation of a Land Tenure Study

While a key constraint affecting NRM, land tenure is highly complex and site-specific. In an effort to obtain a better understanding of land tenure issues, the ANR Program will execute an OYB transfer to the Land Tenure Center's contract with the ACCESS II Project. Through an applied research and policy discussion format, the Land Tenure Center and its Gambian counterparts will recommend policies, if any, that could be included as out-year conditionalities related to the ANR Program.

The ANR Program will issue an OYB Transfer to the ACCESS II Porject in order to procure a 12 month study of tenure issues. The study will involve the use of participatory rural appraisal to analyze district-specific land tenure issues. Case studies will be carried out on four sites (each taking a team of 4-5 people about 8 weeks to complete). The Land Tenure Center will sponsor an in-country workshop at the end of the study to disseminate the results. The OYB Transfer agreement will be written to closely integrate the land tenure research with other research being conducted under the ANR Program. The total cost of this component is estimate at $150,000.

Support for Creating an enabling framework that will allow local communities to assume management control of, and benefit financially from, local land-based resources.

The current degradation of common-property resources is occurring to a large extent because local communities, not having secure rights over local resources, do not perceive themselves as having custodial and managerial responsibility for those resources. At the same time, the central government, which has assumed the right to these resources in many cases, does not have the manpower, financial, or material resources to fully meet their custodial and managerial responsibilities.

As stated earlier, a principal thrust of the ANR Program is to help create the enabling framework to allow communities and individuals to assume more responsibility for the management and protection of natural resources. The previous section addressed ANR Program activities designed to help develop or improve the requisite policies, legislation, and institutional mechanisms at the national level. ANR community activities and their links with national efforts are defined in this section.

a. Implementation Strategy

GOTG policy, as outlined in the GEAP, explicitly recognizes the need to empower local communities to control and manage their natural resources. The GEAP's specified strategies leading to that end are to:

- Assist and encourage producers to adopt improved land and natural resource management practices;
- Develop an effective government/community partnership to ensure rational management of natural resources; and
- Develop local area integrated management plans.

The ANR Program supports these strategies and is based on a key premise: that Government, NGOs, and communities will be partners in formulating and implementing programs to manage the nation's natural resources effectively.

Central to ANR Program community activities will be the **Community Resource Management Agreement (CRMA)**: a formal covenant signed between a community (be it a traditional group, a Village Development Committee, or a newly-organized group of resource users) and the Government. The Agreement authorizes shared control over a natural resource previously controlled exclusively by the Government.[5] Specifically, the Agreement sets out the rights and obligations of both parties with regard to control, management and usufruct rights related to either a particular common land area with multiple resource uses (e.g. crop/range lands), or a single resource (e.g. water, trees, forage, fish).

Government representatives authorized to sign CRMAs will often vary with the geographic area and the resources under negotiation. Initial CRMAs will probably entail signatures of high government officials until procedures for devolution of authority to local communities become clearer. Ultimately, signature authority may be delegated to a lower administrative level. The Department of Forestry would be the relevant office concerned with access to trees in non-gazetted forest land and access to all resources in gazetted forest. The Department of Wildlife Conservation and Department of Fisheries are examples of other potential GOTG signatories to a CRMA. GOTG agencies and NGOs providing goods and services to assist the community group in managing these common property resources would not be formal signatories but may be referenced in the Agreement.

CRMAs are not imposed from above. They are negotiated agreements that rest upon a solid consensus and are binding on the signatories and delegates. As such, CRMAs are preceded by a thorough, and often lengthy, dialogue within the community, and

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[5]A CRMA would not be required when a community already has unilateral control over a resource. For example, constructing contour berms on village farmland to control erosion would not require Government clearance, since Government already recognizes community control over that land. In that case, an agreement among individual land holders would suffice.

then between the community and government technical services before the terms of an Agreement are reached. Examples of such agreements, signed on a pilot basis under the Community Forestry Component of the Gambian-German Forestry Project (discussed below) required over one year between initial contact with the villages concerned and the formal signing of the CRMA.

CRMAs are concerned with introducing technical and administrative improvements leading to a more productive and sustainable use of common-property resources. In effect, communities are granted rights over specified resources based on resource management plans contained in the CRMA. The plans might include: (1) integrated forage crop production and range management schemes; (2) the construction of soil and water conservation works, including contour dikes, swampland reclamation, and the construction of salt barrier dams; (3) forest management plans; or (4) agroforestry interventions, including the creation of windbreaks and living fences, the introduction of multipurpose trees, and fruit tree gardening. Some of these improvements or innovations may involve fairly complex resource interactions, as with agro-silvo-pastoral systems, and their implementation would require a good deal of technical assistance. Redefinition of processes to administer the resources will add additional complexity.

CRMAs have the potential to generate substantial development funds with all their social and political implications at the local and national levels. They can be risky endeavors, too, since local control may mean accelerated local exploitation of resources, despite all the safeguards. Take as an example a community granted rights through a CRMA to manage a specified forest. To satisfy immediate cash needs, the local communities may authorize more cutting than the forest can sustain, thereby sacrificing its long-term viability. By specifically limiting resource use to levels that are sustainable, CRMAs offer a potential solution.

While CRMAs will be the mechanism through which control of natural resources is divested to communities, the Agreements are a means to an end, not an end in themselves. Legally sanctioned use rights over a resource allows, but will not in itself bring about effective management of the resource; that is, secure use rights are a necessary but not a sufficient condition for improved resource management. Successfully implemented CRMAs evolve from a preliminary assessment of the community's needs and priorities, fit within the context of the community's overall development agenda, and are viewed by participants as a step towards solving a priority problem. Clearly, communities -- and NGOs and government agencies working with them -- must address immediate food security needs before they can, for example, focus on future fuelwood needs. Implications for the ANR Program are evident: if intervening, more immediate, priorities are identified in the course of promoting dialogue leading to a CRMA,

the ANR Program must be sufficiently flexible to permit complementary activities to address these priorities. The focus, however, will remain on the CRMA and on implementing the resource management plans it contains.

In designing this component of the ANR program, a number of **critical factors related to natural resource management** in The Gambia have been taken into account, namely:

- the level of experience of the GOTG, NGOs, and village communities in developing and implementing CRMAs, and in initiating these agreements within the context of the communities' overall development needs and priorities;

- the technical and organizational capacity of GOTG and NGO personnel to facilitate the village implementation of integrated resource management schemes; and

- the relative strengths of NGOs and GOTG Departments in working with communities of natural resource users.

The first factor to consider is that the current base of experience of the GOTG, NGOs, and local communities in developing and implementing CRMAs is limited. The Gambian German Forestry Project began implementing the first two community forestry management schemes of their kind in the country in 1991, one involving a single village and one which shares responsibility among three villages. Initial feedback is quite promising, but participatory consensus building is necessarily slow. Negotiations leading up to the formal enactment of the CRMAs took months. Extreme care is being taken to move forward at the villagers' own speed and to address their concerns about land tenure, government integrity, and village politics. The full impact of the scheme will not be known for years. It should be noted, however, that because of the pilot nature of these efforts, they are taking longer to implement than should be required for subsequent efforts.

Similarly, the UNDP Rangeland and Water Development Project in Dankunku has experimented over the past six years with local control of grazing resources as a means of providing an incentive for proper grazing management. The UNDP and the local Livestock Owners Association negotiated with the district for permission to implement the project. The project's success is widely acknowledged. Improved grazing management practices are being used, uncontrolled burning has been minimized, forage quality and quantity is greatly enhanced, and revenue generating activities have laid the basis for the program's sustainability after UNDP funding terminates. However, there has, as yet, been no economic assessment of the project, and it is unclear how easily elements of the program could be disseminated to other communities in the absence of the heavy donor support employed at Dankunku.

The Soil and Water Management Unit (SWMU) has adopted an approach of integrated watershed management for introducing new technologies to villagers. Working closely with natural resource users, the SWMU develops land use plans and recommends an integrated development program which may include anti-salinity intrusion dikes, erosion control structures, and agroforestry interventions. While a number of structures have been constructed successfully, questions similar to those being addressed by the Gambian-German Forestry Project still arise.

Most recently, the Save the Children Federation (SCF) USA is field-testing an approach which integrates the local community's natural resource management concerns with their other development needs. Using the Participatory Rural Appraisal (PRA) techniques, a multi-disciplinary field team worked with one village to help them define and prioritize their problems. Soil erosion emerged as a key concern and, with the assistance of SWMU, a plan to control erosion was initiated. While much work remains to be done to refine the process, the SCF effort is an important point of departure for the ANR Program. Action Aid and the Gambian Rural Development Agency (GRUDA) have also introduced PRA into their programs and are pursuing solutions to NRM problems which emerged through the village appraisals.

The activities of NGOs, the Gambian-German Forestry Project, the UNDP Livestock Project, and SWMU represent experiments with varying approaches to promoting local control and management of natural resources in The Gambia. They range from written Community Forestry Agreements between Government and the community to verbal agreements between heads of households concerning shared resources. Furthermore, NRM interventions diverge in the extent to which they are promoted as a result of, or conversely, peripheral to, an overall assessment of community needs and development priorities. The pros and cons of each approach, their respective relevance to the management of other common-use resources, the roles of various stakeholders, and their effectiveness and sustainability are still being evaluated. Given this nascent experience, it is essential that the ANR Program proceed slowly and cautiously so as to incorporate lessons learned into the new design of field interventions.

The second factor considered in designing the ANR Program is the technical and administrative capacity of GOTG and NGO personnel to facilitate the implementation of integrated resource management schemes at the village level. Personnel in GOTG technical departments have valuable expertise in their respective sectors (e.g. forestry, range management, and agriculture). However, their experience in applying their skills within a multi-disciplinary framework is limited. Moreover, qualified technicians are in short supply and demand for their services is high. NGOs face similar constraints and are sometimes accused of draining government's already depleted technical expertise by luring them away with higher salaries than what government can

afford. The present level of staffing and technical expertise within the concerned GOTG departments and NGOs makes solid, effective planning paramount to implementation of the ANR Program.

The third factor is the relative strengths of GOTG Departments and NGOs in working with communities of natural resource users. The role of Government is to develop policy guidelines, conduct research, monitor program impacts, and provide technical support. Despite their numerous extension agents and substantial donor investment, government efforts to carry out village-based programs have fallen short of expectations. The strength of NGOs, on the other hand, traditionally lies in their decentralized structure and in their capacity to use their strong links with villagers to develop and implement grass-roots programs. The ANR Program implementation strategy optimizes these comparative advantages of Government and NGOs in carrying out project activities.

Taking these factors into account, the ANR Program implementation strategy is defined as follows:

1. The ANR Program is the pilot phase of a longer-term effort. A system for assessing the needs and priorities of local communities will be refined and appropriate methodologies for negotiating and implementing CRMAs within this context will be developed. The pilot effort will help determine the extent to which local communities can become responsible stewards of resources, and also the acceptability of CRMAs as mechanisms for gradually extending sustainable resource management throughout the rural areas.

2. Effective feedback channels will be created to ensure that community-based activities influence natural resource management policies being articulated at the Ministry level.

3. Emphasis is placed on strengthening the technical and organizational capacity of the three parties concerned -- local communities, NGOs, and GOTG -- to formulate, implement, and monitor community-based natural resource management programs. This will be facilitated through technical assistance and training.

The respective roles of Government, NGOs, and local communities in institutionalizing a participatory natural resources management program will evolve and be fine-tuned during the course of ANR Program implementation. Nevertheless, it is possible to suggest a tentative division of responsibilities (adapted from GGFP and international experience) to achieve this end. GOTG's role would be to:

- formulate and enact policies and regulations governing the management of common-use resources;
- approve CRMAs and ensure compatibility with national land use allocations such as national forests and parks;
- educate and inform the public;
- strengthen inter-sectoral cooperation;
- coordinate external contributions and services from other agencies;
- conduct resource inventories; and
- monitor and evaluate progress in the above areas.

NGOs will act as catalysts and facilitators, linking communities and Government in initiating natural resource management programs. Specific responsibilities might be to:

- help villagers develop and articulate -- by consensus -- a genuinely critical view of their own situation and a realistic assessment of their ability to take necessary steps to improve it;
- develop community-based management plans which reflect the above assessments and which will serve as the framework for all NRM interventions within the villages;
- where appropriate, facilitate negotiations between communities and government in formulating CRMAs;
- act as interpreters of the technical and administrative requirements set by the GOTG on management plans included in the CRMAs;
- assist villagers in identifying initiatives and activities that would contribute to improved natural resources management;
- plan, establish, and maintain village-based projects using improved technologies and practices in the areas of community forestry, soil fertility management and soil conservation, and water management;
- work with villagers and technical departments to develop and implement income-generating activities as they relate to resource management plans;
- monitor program implementation in collaboration with the appropriate GOTG departments and units;

- diffuse environmental education themes at the community level; and

- work with the GOTG to help translate policies into local community programs and activities, and provide the GOTG with community feedback and recommendations for policy reforms.

Rural communities would:

- provide information to identify problems and how to solve them;

- agree among themselves upon various tenure and land use issues influencing the use of common resources;

- provide and organize required labor for resource inventories;

- define and observe rules and regulations governing the management of all communally used lands and resources, villagers' contributions to manage the resources, and the sharing of benefits;

- participate in preparing management plans and agree upon the plans; and

- provide and organize the necessary work force for implementing activities defined in the plans.

b. ANR Program Inputs and Activities to Improve NRM at the Local Level

ANR Program inputs to be provided will include:

- Long- and short-term technical assistance to support both GOTG and NGO personnel in implementing community resource management programs;

- In-country and third country/overseas training for natural resource management technicians and other program participants; and

- Grants to NGOs for developing village-based NRM programs.

All inputs will be managed through the institutional contractor, with the exception of long-term training (and perhaps some third-country training) which will be managed by the Mission through the Human Resources Development Office.

Technical Assistance A Grants Administrator will be provided to help lay the groundwork for implementation of village-based programs through NGO grants. This senior-level advisor will be experienced in coordinating community-based natural resource management programs and have broad expertise across a range of NRM fields. Strong managerial skills will also be required to administer the NGO grants. Specific tasks will be to:

- Work with GOTG and the Senior Policy Advisor to develop the framework through which the GEAP strategy of participatory natural resource management will be achieved at the village level;
- Execute and administer NGO program grants on behalf of the institutional contractor;
- Assist in defining the contents and format for Community Resource Management Agreements;
- Assess the appropriateness of available natural resource management technologies for The Gambia and work with GOTG and NGO staff to develop, on a pilot basis, the mechanisms for integrating these technologies into a participatory resource management strategy (approaches and experiences of the GGFP, UNDP Dankunku Project, SWMU, the Kiang West National Park Management Plan, and NGOs will be incorporated into the strategy);
- Develop and coordinate a program of training and technical capacity-building for NGO and GOTG personnel working in the natural resources sector (including training in multi-disciplinary methodologies for participatory appraisals of village needs);
- Facilitate collaboration between and within GOTG line agencies and NGOs;
- Serve as a technical resource to GOTG and NGO field personnel in program development and implementation; and
- Facilitate coordination between the Environmental Education Advisors for both the ANR Program and the Peace Corps and NGOs/communities to ensure the development of appropriate environmental education programs and teaching materials.

Short-term technical assistance will be provided as needed to both complement and strengthen the staff capacity of GOTG line agencies and participating NGOs to develop and implement community-based natural resource management programs. Indicative areas of technical support could include agro-forestry, rural engineering, community forestry management, and range management.

However, decisions as to the type, duration, and timing of this assistance will be strictly demand-driven, based on the expressed needs of the institutions concerned.

Program Grants to NGOs Once the policy framework for participatory natural resource management is sketched out, grant proposals will be solicited from a small number of international NGOs to carry out field programs.[6] As discussed under the implementation strategy, NGO activities financed by the ANR Support Project will be limited to promoting longer-term, community-based resource management and conservation. This would not preclude support for projects that provide primarily short-term benefits (e.g. gardens, sheep fattening). However, short-term income-generating activities would be carried out within the context of a longer-term strategy for local resource management, the core of which will be the preparation of CRMAs between local communities and GOTG.

A Technical Advisory Committee will be set up to guide implementation of the NGO grant program. Although the committee's precise composition will be determined during project implementation, it may include directors of participating technical departments, the MNRE Principal Planner, NGO representatives, the USAID project manager, and the ANR Program technical advisors. Initially, the Committee would review, or even help to develop, grant proposals by providing technical input and suggesting ways to ensure effective inter-agency coordination in the proposed implementation plan. Through this process, the Committee would strengthen the proposals and provide an informal endorsement of their viability.

Grant proposal evaluation criteria would also be developed by the Committee and might include: conformity to the GOTG policy framework; completeness and feasibility of the proposed activity; cost; NGO counterpart contribution; level of local involvement; impact on women; and institutional competence of the NGO. Annex E contains indicative guidelines for proposal review and evaluation.

To avoid unnecessary implementation delays, a single signatory will be required to act upon a submitted grant proposal within a specified period of time. However, since the proposal will have already incorporated the views of the signatory's own technical advisors (department heads, etc.) via the Technical Committee, the procedure should be relatively straightforward.

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[6]AID Contract Bulletin 92-7 specifies procedures permitting the institutional contractor to issue grants to local NGOs as well as USAID-certified NGOs. Criteria under the ANR Program for grant award by the institutional contractor would use the same criteria USAID would use if directly issuing the grant (see Section IV.B.2., Disbursement of Support Project Funds)

Once the grant is approved, the NGO will receive annual disbursements through the same procedure, based upon a work plan approved by the signatory.

As NGO programs move to implementation, the Technical Committee would provide a structured forum to: air problems and needs; monitor implementation progress; identify constraints; and develop alternative courses of action. In addition, the Committee could become a vital conduit through which the NGOs' experience is incorporated into natural resource management policies being articulated at the Ministry level. The Committee might meet monthly or quarterly as needed.

One potential drawback of issuing NGO program grants through the institutional contractor is the time lag between project initiation and the signing of the contract. A locally-operating, USAID-certified NGO has indicated an interest in submitting a proposal before the institutional contract is operational. Thus, provision will be made for an interim grant between USAID/Banjul and the NGO concerned. It should be stressed that no more than one such proposal is expected and it would not be initiated unless the USAID PSC Program Manager was in place.

This interim grant would offer two advantages:

1. The process of developing, reviewing, approving, and implementing the interim proposal would serve as a "test run" for future NGO programs, giving participants in the process -- GOTG, NGOs, and USAID -- a head start on refining procedures outlined in the PAAD for issuing and monitoring the ANR grant program.

2. Efforts to field-test promising natural resource management initiatives could continue without losing implementation momentum. Equally important, the follow-on program would provide the opportunity in the near term to test participatory resource management principles to be promoted through the ANR Program.

Care will be taken to ensure a smooth transition between the interim grant and that eventually issued through the institutional contractor. First, USAID would approve the proposal only if it were endorsed by GOTG. Second, the interim grant will be limited to a time frame ending with the call for proposals after the institutional contractor becomes operational. Finally, the interim grant would contain provisions for activities to mesh with the participatory natural resource management framework as it evolves over the life of the project.

<u>Training</u> Given that experience with participatory natural resources management in The Gambia is limited, development practitioners at all levels will need to be sensitized to its principles and trained in its processes. In collaboration with

GOTG and participating NGOs, the Grants Administrator will develop and implement an in-service training program for personnel taking part in program activities. The plan will consist of in-country training workshops, on-the-job training, and site visits to other countries to observe on-going programs relevant to work in The Gambia (regional networking). Training could be carried out by international consultants or by technical experts from GOTG units and other local sources. While specific training program content will be developed in response to explicit demand, anticipated priority training areas include Participatory Rural Appraisal techniques, simple technical packages, watershed management, and environmental education. As women are crucial to sustainable resource management in The Gambia, training programs will be designed to involve a high percentage of women and to be responsive to gender-specific needs.

F. Program Inputs and Budget

Table 2 provides a tentative summary of the level of effort and budget of the proposed ANR Program and Support Project. The proposed funding will be $22.5 million, over a five year life, of which $10 million will be for non-project assistance, and $12.5 million for assistance under the Support Project.

G. Program Outputs

The ANR Program resources will be used to produce the following outputs: Improved natural resources planning; empowerment and pricing policy reforms; elimination of the monopoly of the Livestock Marketing Board on the importation and export of livestock; GOTG budgetary reforms; and natural resource interventions.

TABLE 2: ANR PROGRAM TENTATIVE BUDGET

Non-Project Assistance	10,000,000
Support Project Assistance	
USAID Program Management	645,000
Long-term Technical Assistance (institutional including overhead, fees, home office support and other direct costs)	3,813,000
Senior Policy Advisor, 4.0 py Grants Administrator, 4.0 py Program Budgeting Specialist, 2.5 py Environmental Education Specialist, 2.0 py Resource Inventory Specialist, 1.0 py	
Short-term Technical Assistance (62 pm)	1,424,000
Training and Networking Degrees in U.S. and Third Country Short-term U.S. and Third Country training In-country Training Regional Networking	1,804,000
Commodities	972,000
NGO Subgrants	1,800,000
Peace Corps Natural Resource Program	200,000
Land Tenure Study	250,000
Policy Studies	400,000
Evaluation	150,000
Audits	50,000
Inflation/Contingency on Project Assistance	992,000
Total Support Project Assistance	12,500,000
TOTAL PROJECT	22,500,000

IV. COST ESTIMATE AND FINANCIAL PLAN

A. Financial Plan

The ANR Program will have two components. The first will be a dollar grant to the GOTG for debt relief (non-project assistance conditioned upon selected policy reforms). The second component, the Support Project, will finance technical assistance, training, commodity procurement, NGO subgrants, OYB transfers to the Land Tenure Center and to the Peace Corps natural resources/environmental education program, studies, evaluations and audits.

Table 2, above, provides a **Summary Cost Estimate** (budget) of the proposed ANR Program and Support Project. **More** detailed cost estimates are included as Annex C.

The **Illustrative Obligation Schedule** is shown in Table 3. The **Illustrative Disbursement Schedule** is presented in Tables 4 and 5. Information on the **Sources and Applications of Funds** is presented in Table 6.

Table 3: Illustrative Obligation Schedule ($000)

	FY92	FY93	FY94	FY95	FY96	FY97	Total
Dollar Transfer	1000	3000	1000	2000	3000	0	10000
Project Support	2420	1500	2450	2500	3630	0	12500
Total	3420	4500	3450	4500	6630	0	22500

Table 4: Illustrative Disbursement Schedule - Summary ($000)

	FY92	FY93	FY94	FY95	FY96	FY97	Total
Dollar Transfer	0	4000	1000	2000	3000	0	10000
Long-term TA	0	606	1258	1344	828	422	4458
Short-term TA	0	185	410	380	284	165	1424
Training/Networking	0	250	429	440	300	385	1804
Commodities	0	257	615	100	0	0	972
NGO Grants	0	200	300	400	450	450	1800
Peace Corps OYB Tran	0	100	100	0	0	0	200
Land Tenure Ctr. OYB	0	250	0	0	0	0	250
Studies	0	0	0	250	100	50	400
Evaluation/Audit	0	0	0	100	0	100	200
Inflation/Contingency	0	135	223	224	223	187	992
Total Support Project	0	1983	3335	3238	2185	1759	12500
Total ANR Program	0	5983	4335	5238	5185	1759	22500

Table 5: Illustrative Disbursement Schedule - Detail ($000):

	FY92	FY93	FY94	FY95	FY96	FY97	Total
I. Non-Project Assistance							
Dollar Transfer	0	4000	1000	2000	3000	0	10000
II. Support Project							
MISSION MANAGED							
Program Management		150	160	160	160	15	645
Commodities		15					15
ST-Technical Assistance		25	125	25	19		194
Training - LT		100	150	150	150	250	800
Training - ST overseas		60	64	60	60	60	304
Peace Corps OYB Transfer		100	100				200
LTC OYB Transfer		250					250
Evaluation				75		75	150
Audit				25		25	50
Inflation/Contingency		30	20	20	17	75	162
Total Mission		730	619	515	406	500	2770
INSTITUTIONAL CONTRACTOR							
Senior Policy Advisor		95	298	298	298	144	1133
Grants Administrator		75	175	175	175	152	752
PBS Advisor		100	170	185			455
Envir Educ Spec		70	170	170	39		449
ST-TA - Envir Educ		40		70	50	31	191
Resource Inv Spec			61	150			211
ST-TA - EIS/Photog		40	110	110	40	19	319
Short-term TA		80	175	175	175	115	720
Home Ofc Backstop		40	60	60	50	42	252
Training-In Country		50	175	190	50	35	500
Networking		40	40	40	40	40	200
Other Direct Costs		40	60	60	60	39	259
Aerial Photos			300				300
Other Commodities		242	315	100			657
Contract Fixed Fee		36	104	86	46	30	302
NGO Grants		200	300	400	450	450	1800
Studies/Monitoring				250	100	50	400
Inflation/Contingency		105	203	204	206	112	830
Total Inst. Contractor		1253	2716	2723	1779	1259	9730
Total Support Project		1983	3335	3238	2185	1759	12500
Total ANR Program	**0**	**5983**	**4335**	**5238**	**5185**	**1759**	**22500**

Table 6: Sources and Applications of Funds ($000):

Method of Implementation	Method of Financing	Approx. Amount
Dollar Transfer	Direct Payment	10000
Project Component		
- Prog Management	Direct Payment	645
- Technical Assistance (AID Direct Contracts)*	Direct Payment	8900
- Technical Assistance (Buy-ins)	Direct Payment	194
- Commodities (AID Direct)	Direct Payment	15
- Training (AID direct) **	Direct Payment/ Direct Reimbursement	1104
- Peace Corps (OYB Transfer)	PASA	200
- Land Tenure Center Study (OYB Transfer)	Direct Payment	250
- Evaluations and Audits	Direct Payment	200
- Contingencies	N/A	992
Total		22500

* Includes all expenditures under institutional contract, including long- and short-term TA, NGO grants program, other direct costs, fixed fee, in-country training, commodity procurement (including aerial photography) and policy studies, excluding contingencies.

** Includes short- and long-term training.

B. Methods of Implementation and Financing

1. Disbursement of NPA Funds

The Mission plans to use the NPA grant funds to reduce the GOTG's external debt to multilateral donors. For the foreseeable future, the Gambia's debt service payments will average around $25 million annually, or around 12 percent of GDP. These are contractual obligations that must be paid in order for The Gambia to stay current with IMF and World Bank programs and to rebuild its financial standing in international credit markets. The Mission views these payments as crucial for maintaining The Gambia's economic stabilization and restructuring program. The proposed allocation of these sector grant funds is simple to manage and has worked well for the Mission in the past.

Dollar disbursement will be tranched against receipt of evidence that specific Conditions Precedent (CPs) to disbursement have been met. The funds will be disbursed in five tranches, beginning in FY 1993.

The disbursement method to be used in the ANR Program will consist of the following steps. Upon evidence that CPs to disbursement have been met, tranched dollars will be deposited into a separate account of the Central Bank of The Gambia in New York. Funds in this account will not be commingled with other funds, and the dollars will be tracked until they are used to pay eligible debts. USAID has experience working with implementing non-project assistance through the Central Bank of The Gambia and believes that it can responsibly manage the separate account. Annex B presents the proposed policy reform agenda, disbursement conditionalities, and anticipated time frames for disbursement.

The initial conditions precedent will require that the GOTG submit to USAID: (1) written evidence that it has established a separate account for the Grant funds as described in the Program Grant Agreement; (2) the name, address and account number of the United States bank into which the dollars under this Grant will be deposited; and (3) a letter describing the requirements that must be met before funds will be disbursed from that account. The requirements shall include supporting documentation to permit monitoring of disbursements, requirements for maintaining funds in this account separate from other funds of the Grantee, and requirements for periodic reports to A.I.D. on disbursement from that separate account.

2. Disbursement of Support Project Funds

A Personal Services Contract will be issued to procure the services of a program manager who will be attached to the USAID office.

USAID will issue an institutional contract with a U.S. firm, university, or other institution to implement both components of the project, that is: (1) providing assistance to strengthen the national policy and institutional framework concerning natural resources; and (2) creating the enabling framework that will allow local communities to assume management control of, and benefit financially from, local land-based resources. This latter component will involve the coordination and management of the NGO grants program, including the awarding of grants to NGOs.

Per AID Contract Information Bulletin 92-7, institutional contracts can now be awarded which allow the contractor to execute and administer grants. The requirements which apply to AID-executed grants will apply equally to those signed by the AID contractor. The use of this mechanism is dependent upon the following actions:

- Approval on a contract-by-contract basis by the Regional Contracting Officer (RCO) is required before such a system may be used. The approval must be in the form of a memorandum justifying the proposed contracting/grant arrangement.

- Prior to approval, the RCO will send the draft memorandum to AID/Washington's Procurement Policy and Evaluation Staff (FA/PPE) for comment. The justifying memorandum must be cleared by the Regional Legal Advisor before it is signed by the RCO.

- Approval will generally be limited to situations in which it is not feasible to accomplish AID objectives through normal contract and grant instruments administered by AID and where either: (a) the administration of the grant program is incidental to other technical assistance activities of the contractor, or (b) the burden of executing and administering a number of small grant activities is particularly difficult for the responsible AID Mission or office.

- AID will have substantial involvement in the establishment of selection criteria and the actual selection of grant recipients. At a minimum, AID will approve the selection of grantees prior to award.

- AID will retain in the contracting arrangement the ability to terminate the grant activities unilaterally in extraordinary circumstances.

USAID/Banjul believes that the burden of executing and administering a number of small grant activities under the ANR Support Project would be impractical, given its limited staff. The PAAD design team also considered issuing a cooperative

agreement to a "grants management" NGO. This approach had several drawbacks, however: (1) it would probably have required issuing a contract to an NGO that was not currently active in The Gambia, thus entailing additional establishment costs; (2) the issuance of a cooperative agreement (in addition to the institutional contract) entailed an additional administrative and contracting burden for the Mission; and (3) the administrative costs implicit in the operation of a separate management unit substantially increased the costs of implementing the NGO component of the proposed project.

In addition, there are programmatic advantages to closely linking the institutional contractor to the sponsoring NGOs. Innovative approaches in improved natural resources management developed by the NGOs need to feed quickly into the policy dialogue process. Similarly, activities of the NGOs will benefit from the counsel of the senior technical advisors fielded by the institutional contractor.

Funding of two elements of the ANR Program will be through OYB transfers to ongoing AID projects. The land tenure study will be financed through an OYB transfers to the centrally-funded Access to Land, Water and other Natural Resources II Project (ACCESS II). The collaboration with the Peace Corps will be through an OYB transfer to the Peace Corps-USAID Forest Resource Management II Participating Agency Service Agreement (PASA) which is part of the Peace Corps/AID Africa Bureau Natural Resources Management Initiative.

C. GOTG Contribution

USAID/Banjul has received a waiver of FAA Section 110 (requiring a 25 percent host government contribution). The Gambia is eligible for a waiver under FAA Section 124(d), since it is considered a "Relatively Least Developed Country" by the United Nations.

The PAAD makes a clear case that the GOTG commitment to the objectives of the proposed ANR Program are firm, as required by FAA Section 124(d). This commitment is evidenced by both the GOTG's overall performance in terms of undertaking serious macro-economic structural reform since 1985, and its commitment to conserving its environment.

V. IMPLEMENTATION PLAN

A. Mission Management Plan

The ANR Program is designed to put a minimal administrative burden on the Mission, while at the same time keeping the Mission involved in policy dialogue and general program direction. The Mission's contracting and procurement responsibilities for the functional portion of the ANR Program have been limited. The primary actions are: (1) recruitment of a PSC program manager; and (2) recruitment of an institutional contractor; (3) two OYB transfers; and (4) possible buy-ins to centrally-funded AID projects over the life of the project.

In view of the small number of USDH staff at post, a PSC Program Manager will be recruited immediately upon satisfaction of the Conditions Precedent to initial disbursement, to assist the Agriculture Development Office in managing the project. This PSC Project Manager would be financed by the project for four years. The tasks would include:

- Preparing, together with the Regional Contracts Office, a Request for Proposals for the institutional Contract; and reviewing, along with the USAID/Banjul ADO, proposals from bidders for the contract.
- Assisting in the development of NGO selection criteria and in the actual review of NGO grant proposals.
- Monitoring and evaluating the performance of the institutional contractor and NGOs that receive grants. This would include both technical and financial monitoring and ensuring that they are tracking progress indicators relevant to their activities.
- Assisting USAID senior staff in maintaining a policy dialogue with the GOTG. The formulation, under the guidance of senior Mission staff, of USAID policy positions.
- Coordinating ANR Program activities and NPA assistance with other donors.
- Monitoring the GOTG's performance in implementing policy reform measures called for under the NPA component of the Program.
- Monitoring the impact of the ANR Program.

This individual would handle the bulk of the start-up activities of the project (e.g. preparing the Request for Proposals, contractor selection, recruiting urgently needed

short-term technical assistance, managing the project until the long-term technical assistance team arrives).

The Mission expects a lag of ten months between the date of Grant obligation and the arrival of the long-term consultants under contract. Should short-term technical assistance for the Policy Component during the lag be required, USAID will consider the use of a buy-in to the centrally-funded Environmental Planning and Management Project or the Environmental Policy and Training Project (EPAT).

The Mission will be responsible for several Program support functions, specifically: (1) making the cash transfers required under the Non-project assistance component of the Project; (2) approving vouchers from the institutional contractor; and (3) managing degree training and short-term U.S. training through the Human Resources Development Office.

B. Implementation Timetable

An implementation timetable of major events appears as ANNEX R. The most critical events in the implementation of the Program are the fulfillment of conditionalities. USAID expects the GOTG to fulfill the conditionalities. The Mission and the GOTG can manage unexpected delays in all the other Program events without adversely affecting the Program.

1. Contracting

It is expected that the ANR Program should be fully obligated by August, 1992. The PSC Program Manager will be recruited as soon as the conditions precedent to disbursement are met. The PIO/T for the institutional contract and the RFP will be drafted by October, 1992. It is reasonable to expect that the institutional contractor will be selected no later than April 1993, and the team fielded by June 1993. OYB transfers to the ACCESS II project (with the Land Tenure Center) and to the Peace Corps will be initiated once the PSC Program Manager is recruited.

2. NPA Tranche Releases

The ANR Program will schedule tranche releases annually. The first tranche release will occur as soon as possible after the obligation of the ANR Program, and all others will occur in July of each year, depending upon the satisfaction of conditionalities.

3. Timing of Evaluations and Audits

A mid-term evaluation will be scheduled for October 1995. The final evaluation will be scheduled for January 1997. Funds are included in the budget to permit USAID to carry out a special audit of the project, should that become necessary. Audits of the Central Bank of The Gambia account handling the cash transfer will be completed annually (coordinated with the Regional Inspector General). Audits of the U.S. institutional contractor and U.S. NGOs will be the responsibility of AID/W. No direct financing is planned for non-U.S. institutions (which would thus require annual mission audits). Should such assistance be provided, provision will be made for annual audits as required by recent AID/W guidance using funds from the audit line item of the budget. However, no audit has been specifically scheduled in the implementation timetable.

VI. PROCUREMENT PLAN

A. Contracting for Technical Services

USAID will issue an openly competed request for proposals for an institutional contractor to supply the technical assistance and training for the Program. During the life of project, the selected firm would provide approximately 13.5 person-years of long-term assistance, including the following positions:

- Senior Policy Advisor/Natural Resource Planner (4.0 person years);
- Grants Administrator (4.0 person years);
- Program Budgeting Specialist (2.5 person years)
- Environmental Education specialist (2.0 person years); and
- Natural Resources Inventory specialist (1.0 person year).

In addition, the contractor will provide approximately 61 person-months of short-term technical assistance. Possible buy-ins to centrally-funded AID/W projects and other agreements will provide additional short-term assistance during the LOP.

B. Commodity Procurement

The institutional contractor will be responsible for procuring the bulk of the commodities. This contractor will

develop specifications required to initiate and carry out the procurement, reimburse the supplier, and report to USAID upon the receipt of project-funded commodities.

C. Authorized Source/Origin

All goods and services, the costs of which are to be reimbursed under this Grant and which shall be financed with U.S. dollars, shall be purchased in and shipped from only "special free world" countries (i.e., A.I.D. Geographic Code 935) in accordance with the following order of preference:

- The United States (A.I.D. Geographic Code 000);
- The Cooperating Country;
- "Selected Free World" Countries (A.I.D. Geographic Code 941)
- "Special Free World" Countries (A.I.D. Geographic Code 935)

In adherence to the policy direction of the Administrator of AID, every effort has been made during the planning of this project to maximize procurement of commodities from the United States. All data processing equipment will be purchased in the United States. However, certain office furnishings and office equipment will be purchased locally and will have their origins outside the U.S.

D. Use of Gray Amendment Entities

This procurement shall be a full and open competition. However, USAID encourages maximum and meaningful participation of small business concerns, small disadvantaged business concerns, and women-owned small business concerns in this activity as prime contractors or as sub-contractors, in accordance with Parts 19 and 26 of the Federal Acquisition Regulations (FAR). USAID also encourages maximum and meaningful participation of Gray Amendment organizations, defined as socially and economically disadvantaged firms, historically black colleges and universities (HBCU), U.S. colleges or universities with at least a forty (40) percent hispanic american student population; and U.S. private voluntary organizations controlled by socially and economically disadvantaged individuals (see FAR 19.001 and AIDAR 726.101). If the prime contractor is not a small business concern, or small disadvantaged business concern, or a Gray Amendment organization, no less than ten (10) percent of the total value of the contract shall be subcontracted to Gray Amendment entities. In accordance with FAR Part 19, if an acceptable subcontracting plan cannot be negotiated, the apparently successful offeror will be ineligible

for award. [illegible] other selection criteria being found equal, USAID reserves t[illegible] [illegible]ht to make the level and quality of participation of small business, or small disadvantaged business, and Gray Amendment concerns a determining factor for selection and subsequent award.

VII. MONITORING AND EVALUATION PLAN

The Development Fund for Africa (DFA) requires accountability based on impact at the grassroots level. In accord with Congressional legislation, USAID Missions must document their progress towards stated objectives. The monitoring and evaluation plan for the ANR Program includes three components which, together, allow comprehensive and on-going measurement of progress towards stated objectives:

- **Program Monitoring** includes assessment of progress towards the objectives of the USAID/Banjul program and the ANR program, as elaborated in the indicators for each;

- An **Environmental Information System**, strengthened through Support Project funds, will enable the GOTG to monitor progress towards GEAP objectives, while at the same time supplying input to the Program monitoring efforts of the Mission;

- Special monitoring issues, including the assessment of potentially deleterious environmental impacts of the ANR program (required by **Regulation 16**) and **gender** disaggregated program impacts, will receive special attention and resources.

Data input for program monitoring will come from a variety of sources. The GOTG's on-going data collection efforts in agriculture and natural resources serve as a base for information needs and will be organized and made more easily accessible through the Environmental Information System (EIS) activities in the MNRE. The GOTG's priority areas for data collection will be enabled through Support Project funding, and results will feed into the Program monitoring exercise. NGO's will be required, as a condition of grant receipt, to measure and monitor progress towards pre-defined objectives in their target villages. On-going qualitative assessments of program progress will be supplied by resident advisors from the institutional contract and GOTG personnel. Ultimate responsibility for the monitoring efforts of the ANR program will lie with the USAID Program Manager.

A. Program Monitoring

1. USAID/Banjul Program Monitoring

The Mission Order on monitoring and evaluation (M&E), dated April 1, 1991, stipulates that the M&E system in each project or program must consist of semi-annual reviews, project implementation reports, annual reviews (held in conjunction with the Mission's Assessment of Program Impact), and collaborative project reviews. The Mission Evaluation Officer monitors each project's M&E system and prepares an annual, Mission-wide M&E report by November 15. As input to this report, to the annual review and to the Assessment of Program Impact, the Program Manager summarizes in October the annual M&E system conclusions.

The Mission Order specifies that each M&E plan "will ensure that appropriate baseline information is collected and sufficient project resources are allocated for the monitoring and evaluation function." As the major component of its baseline effort, USAID/Banjul has recently completed a nationwide survey of natural resource practices and will be augmenting this with the collection of secondary data to establish thorough baseline information for the sector.

The recently revised Mission Logframe elucidates a new Strategic Objective and Targets for the agriculture and natural resource sector. Objectives of the Mission Logframe were designed to mesh closely with the ANR Program Logframe, indicating a natural link between the Mission's largest natural resource portfolio project and the Mission overall goals. Strategic Objective No. 3 of the Mission Logframe, " Sustainable increases in the value of production on land under improved resource management practices", is identical to the Program Purpose statement of the ANR Program. Similar consistencies in logic link the logframes and indicators for the Mission and the ANR Program. The Assessment of Program Impact, which reports annually on the Mission's performance, will thus derive its data input from the M&E system put in place as part of the ANR Program.

2. ANR Program and Support Project Monitoring

Monitoring and evaluation of the ANR Program and Support Project entail measurement of progress towards benchmarks indicated in the ANR Program Logframe (see Annex A). Although the USAID Program Manager coordinates and is responsible for M&E, other actors in the process include the GOTG, the Institutional Contractor and participating NGOs.

There are **two components** to the monitoring and evaluation system planned for the ANR program. The first component focuses on the **conditionalities** governing disbursement under the program.

For the most part, benchmarks which indicate the achievement of the conditions are explicit and self-evident in the conditions themselves. The GOTG is required to provide written evidence that it has achieved each condition and the Mission is responsible for ensuring that the evidence is sufficient for that purpose. Progress toward the meeting of conditionalities is shown through a succession of Progress Indicators, which are designed to chart a course towards successful policy reform.

The second component of the ANR M&E plan focuses on gauging progress towards objectives elaborated at the Goal, Purpose, Outputs and Inputs levels of the Program Logframe. Progress towards the **program goal** of "increased rural income" will be measured using results of the Central Statistics Department's Priority and Integrated survey activities. Occurring in alternating years, the Integrated survey provides estimates of absolute levels of income and expenditure statistics while the shorter Priority survey generates indicators of change in the same variables. Results of the 1992 in-depth Integrated survey, due in March, 1993, are expected to provide baseline measurements on rural income efficient enough to enable tracking of change. A recently-begun World Bank Social Dimensions of Adjustment project is assisting the Central Statistic's Department in these surveys.

The **program purpose** is to achieve "sustainable increases in the value of production on land under improved resource management practices." Monitoring of progress towards this objective will be done primarily by the NGO grant recipients. As a condition to their grant receipt, and with the assistance of grant funding, they will be required to carry out detailed baseline and on-going surveys in their target villages. National and regional baseline data will be used for comparative purposes. NGOs will structure their data collection activities so as to be comparable to national and regional baseline data (e.g., the soon-to-be-completed national soil fertility survey).

The **program sub-purposes** are two-fold. Sub-purpose A, "The establishment of a policy and regulatory environment that is conducive to the adoption of improved natural resource management practices," consists primarily of specific conditionalities and progress indicators, as described in Annex B Program Conditionality. As the policy and regulatory environment is improved and the delivery of natural resource technologies becomes more efficient, Sub-purpose B, "increased adoption of improved natural resource technologies" is expected to be achieved. The monitoring of adoption rates of improved natural resource practices will be assisted by the completion of the natural resources baseline survey, due to be finished by August, 1992. As community resource management agreements (CRMAs) become more common, their size, frequency and scope will be monitored by the NGOs who will assist in their development and the technical staff of the Planning Unit, which has been assigned the role of monitoring NGO activities.

The program **outputs** include: (a) improved natural resource planning; (b) empowerment and pricing policy reforms, (c) elimination of the monopoly of the LMB on import/export of livestock, (d) GOTG budgetary reform; and (e) natural resource interventions. Virtually all the indicators developed to monitor achievement of these outputs are qualitative rather than quantitative, and will be achieved through on-going dialogue between the GOTG, the Institutional Contractor (and especially the Senior Policy Analyst), and the USAID Program Manager.

The USAID Program Manager will be responsible for monitoring and reporting on the disposition of program **inputs**, which will be adequately documented through normal correspondence associated with project implementation.

B. Environmental Information System (EIS) within the GOTG

Program monitoring will be assisted through the ANR program's Environmental Information Systems component, one aspect of the more general Program Output of "improving natural resource planning." The GOTG has clearly stated in both the Program for Sustained Development and the GEAP that development of an information base for the environment is of the highest priority. Experience from the soon-to-be completed GARD Project has shown that assistance to the Government's data collection and information system programs has immediate benefits for Program monitoring. While the EIS will avoid highly technical information systems which cannot be expected to be institutionalized, Support Project assistance to EIS computer facilities, will enhance the capacity of the GOTG to provide the data needed for on-going monitoring of its own progress to GEAP goals, as well as the goals of the Mission and ANR Program. The assistance to be provided will include aerial survey and interpretation, and targeted data collection studies. In addition, the data collection capacity will be strengthened through the training efforts of long-term and short-term technical advisors.

C. Environmental Monitoring

Environmental monitoring of AID development activities is required by regulation 22-CFR-216, commonly referred to as **Regulation 16**. Regulation 16 requires environmental monitoring, as per its chapter 216.3(a)(8): "To the extent feasible and relevant, projects and programs for which Environmental Impact Statements or Environmental Assessments have been prepared should be designed to include measurement of any changes in environmental quality, positive or negative during their implementation."

The initial environmental assessment for the ANR program

found that the program would not be expected to have deleterious effects on the environment. The ANR program will monitor changes in the bio-physical environment through its support of national level natural resource data collection and also through the bio-physical data collection efforts of NGOs in areas of active resource use agreements.

Compared to other countries in the sub-region, The Gambia is blessed with abundant historical (though not current) data resources on bio-physical indicators of the environment. Aerial surveys in the early 1970's and 1980's were analyzed in terms of land use and bio-physical composition. Detailed land use maps with four theme overlays were generated using the 1982 aerial survey data. A forest inventory was carried out using the 1982 data. A national soil fertility survey will be completed as part of the ANR baseline survey efforts.

This historical data will be augmented by provision of **current national-level bio-physical data** through an aerial survey and special data collection studies supported by the Support Program (see Annex N for details). Data for monitoring changes in **target areas** will be provided by NGO grant recipients as a pre-condition to grant receipt. As part of its role in monitoring NGOs, the Planning Unit will be responsible for bringing to light possible adverse impacts of ANR program efforts on the environment. The ANR Grants Administrator will be expected to provide technical guidance on the appropriate means for NGOs to monitor changes in environmental indicators.

D. Monitoring of Gender Impacts

The DFA requires that particular care be taken to ensure that adverse impacts of NPA programs on vulnerable groups (such as women, children, landless groups, and minorities) be identified, and that strategies for their amelioration be developed and implemented. In the social and economic structure of The Gambia, the program impact on women versus men demands special attention. The recently completed natural resources field survey (one component of the ANR baseline survey) has established gender-differentiated involvement in select farming and natural resource activities, including gardening, tree planting, and firewood collection. Monitoring attention will continue to be focused on gender impacts of ANR programs, and will be enabled by the gender-disaggregated data of participating NGOs, the on-going National Agricultural Sample Survey in the Ministry of Agriculture, and special studies such as the fuelwood consumption/marketing study to be funded under the Environmental Information Systems component of the Support Project.

E. Evaluations

A mid-term evaluation of the overall ANR Program will be scheduled for October 1995. The final evaluation will be scheduled for June 1997. Interdisciplinary teams of outside advisors will be recruited by USAID (using project funds) to carry out these evaluations. The mid-term evaluation will assess the progress of both the ANR program (i.e. the policy reform effort) and the ANR Support Project against their stated inputs and outputs, and offer recommendations for improving project performance. The final evaluation should determine whether the benefits generated will be sustained after AID funding has stopped. Particular attention will be given in the final evaluation to whether the field-level activities of ANR Support Project will likely be sustained by farmers, NGOs, and GOTG agencies after AID funding ends.

F. Audit Plan

The ANR Program envisioned the following audit requirements:

- For the non-project assistance grant to the GOTG;
- For the institutional contractor (a U.S. organization or firm) selected to implement the Program; and
- For any U.S. PVOs/NGOs which receive grants directly from AID (USAID does not envision providing a grant or cooperative agreement directly to a non-U.S. PVO/NGO).

The nonproject assistance component of this program will be used to pay The Gambia's external debts. Funds are budgeted for nonfederal financial audits of the government's special bank account from which cash disbursements will be made. No direct mission grant or cooperative agreement will be issued under the ANR Support Project to the GOTG or any foreign government or quasi-government entities (i.e. the Project will not provide direct budgetary support to the GOTG).

A.I.D. contracts with U.S. organizations and firms (of which the institutional contractor for the ANR Program will be one) will be audited by a cognizant federal audit agency or an Agency-contracted non-federal auditor. These audits will be funded by the Office of Inspector General and monitored by the AID/W Office of Procurement (FA/OP).

A.I.D. grants or cooperative agreements to U.S. PVOs will, likewise, be funded by the Office of Inspector General and monitored by FA/OP.

USAID does not intend to provide any grants or cooperative agreements directly to non-U.S. NGOs. Assistance to such

entities will be given through the U.S. institutional contractor. USAID must notify FA/OP of the existence of such subgrants, but will not be required to monitor whether the audits of these subgrantees are performed. Compliance with Office of Management and Budget (OMB) Circular A-133 sub-grantee audit requirement is the ultimate responsibility of the U.S. contractor.

VIII. SUMMARY OF ANALYSES

A. Institutional/Political Analysis Summary

1. Institutional Structure

The principal organizations and agencies (governmental and non-governmental) at the national-level which will participate in the ANR Program are: the Ministry of Natural Resources and Environment (MNRE); the Ministry of Agriculture (MOA); and various non-governmental organizations (NGOs). Other GOTG institutions, such as the Ministry for Local Government and Lands and the Ministry of Finance and Economic Affairs have mandates of direct relevance to the ANR Program and will be involved intermittently or be directly affected by the Program. The structure and responsibilities of these institutions, their expected roles within the ANR Program, and issues concerning Program implementation are the subject of Annex D.

a. The Ministry of Natural Resources and Environment (MNRE)

The Ministry of Natural Resources and Environment is comprised of four technical Departments -- Forestry, Water Resources, Fisheries, and Wildlife Conservation -- and is supported in its policy analysis and planning functions by the Planning and Environment Units. The MNRE will be the principle implementing agency for the ANR Program, with the Planning and Environment Units, and the Forestry and Wildlife Conservation Departments being the primary units involved.

The MNRE has overall statutory responsibility for national policy formulation, management and coordination for the environment. The Minister of MNRE chairs the National Environment Management Council (NEMC), established under the National Environment Management Act (NEMA) of 1987. MNRE's Permanent Secretary is chairman of an Advisory Committee on the Management of the Natural Environment, a technical committee also provided for under the 1987 Act. In addition, he serves as secretary to the NEMC.

The **Planning Unit** was created to address a broad spectrum of natural resource management issues, including appropriate natural

resource utilization and sectoral integration to achieve multiple-use management and protection of land productivity. Among the principle responsibilities involve (1) medium-term planning, (2) proposal of policy measures, (3) provision of guidance to technical departments in the preparation of annual work programs and budgets; (4) monitoring and evaluation; and (5) support for data collection and analysis.

Two posts, a Principal Planner and a Planner, were approved for the current fiscal year, but only the former has been filled. Furthermore, as a "unit", and not a department of the Ministry, its operating budget will come from the Ministry's administrative operating budget. The amount to be allocated to the Planning Unit has not yet been specified.

The **Environment Unit** has a broad mandate which includes: (1) coordinating and monitoring the implementation of the GEAP; (2) monitoring activities which affect the environment, particularly in the areas of natural resource management, industry, pollution, and waste disposal; (3) monitoring compliance and enforcement of provisions of environmental legislation; (4) monitoring trends and changes in key environmental parameters; (5) coordinating environmental education and training; (6) coordinating the preparation and review of environmental impact assessments; and (7) coordinating NGO activities and other efforts to improve the environment.

The Environment Unit is currently staffed by one Principal and one Senior Environment Officer, two Environment Officers, and a small administrative support staff. The United Nations Sudano-Sahelian Office (UNSO) provides a Technical Advisor and operating support through a project entitled "Assistance in Planning, Monitoring and Coordination for Natural Resource Management".

The distinction between the roles of the Planning Unit and the Environment Unit are still evolving. According to the GEAP, the Environment Unit will concentrate on environmental issues and in particular on coordination, policy development in environmental issues, education, and monitoring. Meanwhile, the Planning Unit will look at the broader spectrum of natural resource management issues, including appropriate development and integration of sectors to achieve multiple-use management and protection of land productivity". How this division of labor will be operationalized within MNRE has yet to be worked out, particularly the institutional placement of the "policy development" function.

The **Department of Forestry** is charged with the stewardship and management of The Gambia's forests, including the establishment and collection of fees from licenses, permits, royalties, and the sale of confiscated illegal forest products. Of particular relevance to the ANR Program are the efforts of the Forestry Department to promote Community Forest Management

through the Gambian-German Forestry Project (GGFP).

The Forestry Department currently has a full staff complement of 145. However, with only four professional foresters, the staffing level is inadequate to supervise and manage the nation's forests effectively while developing and initiating new programs in the rural forestry sector.

The **Department of Wildlife Conservation (DWC)** is charged with the protection of national parks and preserves. It has 26 employees, but all but two have only minimal education. Given the dearth of professional staff, the Department has not had sufficient capability to supervise, control and implement the new Kiang West National Park management plan nor to create other wildlife refuges. However, nine new positions for the Department were approved by the GOTG in May 1992 for the 1992/93 fiscal year. This staff increase comes at a time when government hiring limits are strictly enforced in other departments, and it demonstrates increased commitment by GOTG to support the DWC with the resources it needs to carry out its mandate.

b. The Ministry of Agriculture (MOA)

The Ministry of Agriculture has four departments of relevance to ANR Program implementation. They are: (1) the Department of Agricultural Services (DAS), which includes the Soil and Water Management Unit (SWMU); (2) the Department of Agricultural Research (DAR); (3) the Department of Planning (DOP); and (4) the Department of Livestock Services (DLS). Of these, the SWMU and the DLS are the most important for the ANR Program.

The **Soil and Water Management Unit (SWMU)** is one of 5 units within the Department of Agricultural Services. Its mandate is to promote improved soil and water management practices. The SWMU has achieved considerable success in reclaiming saline soils and in the conservation of upland soils through the construction of anti-salinity barriers, water diversion and retention structures, and contour berms. SWMU is well staffed, employing some 40 persons, most of whom are professional staff. A significant contributor to the strength of this department was the USAID-financed Soil and Water Management Project. Although the SWMU has functioned under the channel of authority of DAS and is institutionally part of the DAS, it has been somewhat isolated from DAS' budget. Trained extension agents are an integral part of SWMU, but they lack coordination with the DAS extension agents.

The World Bank's ADP III Project, which is currently under design, is expected to place more emphasis than ADP II on soil and water conservation in the upper parts of watersheds and should provide adequate coverage of recurrent costs for the SWMU.

The **Department of Livestock Services (DLS)** is responsible for control of notifiable diseases, the inspection of animal products, and livestock extension. Through its activities with the UNDP-sponsored rangeland management program, the Department of Livestock Services has experience in local management of common grazing areas. This can contribute to the rangeland strategies used in village-level planning efforts that will be supported by the ANR Program.

c. The Ministry for Local Government and Lands (MLGL)

The Ministry for Local Government and Lands has three areas of responsibility of direct relevance to the ANR Program. First, it provides the institutional superstructure for local government administration. These include districts, which are governed by MLGL-appointed commissioners, and divisions which are run through 'area councils'. It is also responsible for operationalizing the legal framework for land tenure in The Gambia. Finally, the Department of Community Development (DCD) within the MLGL has over 60 field agents working with rural communities to stimulate self-help actions. The DCD is also charged with assisting in the formation of village development committees (VDCs).

d. Ministry of Finance and Economic Affairs (MFEA)

The MFEA plays a major role in setting the direction of The Gambia's development. Its role has been enhanced in recent years as the country has gone through a rigorous structural adjustment process. The MFEA will play a key role in the ANR Program in three respects: (1) it will be the implementing agency in the disbursement of NPA debt relief funds; (2) through its budgetary authority, it will have a major impact on the allocation of recurrent budget funds to the ANR implementing ministries (MNRE and MOA); and (3) a principle justification for the introduction of the Program Budgeting System is to enable the MOA and MNRE to better justify, to the MFEA, their (presumably more efficient) budget requests. Thus, the collaboration of the MFEA in the development of the PBS is important, together with its agreement in principle that more careful budgeting would be reflected in a favorable consideration during the budgetary process (vis-a-vis ministries which do not have sound program budgeting systems in place).

e. Non-Governmental Organizations (NGOs)

The Gambia has a history of active participation in development by a broad range of NGOs. Given the size of the country, there is a strong complement of experienced international organizations, some of them registered as PVOs with USAID, capable of designing and implementing major grants or

cooperative agreements. In recent years, a growing cadre of Gambian NGOs has begun to play a major role in development.

The present role and potential for assuming greater responsibility of the major international and Gambian NGOs is essential to expanding development efforts in The Gambia. Under present austerity measures, the GOTG cannot expand services by significantly increasing employee numbers. Indeed, it will be hard pressed to maintain the present level of technical and administrative services. However, there are some areas of friction between NGOs and government. For example, NGO's are sometimes accused of draining government's already depleted technical expertise by luring them away with salaries that are higher than what the government can afford. Furthermore, the opinion has been voiced that some NGOs develop and implement programs with little or no input from government, thus creating a situation where organizations are working at cross-purposes.

The Institutional Annex (Annex D) provides background and program sketches on three of the major NGOs working in The Gambia that could participate the ANR Program: Catholic Relief Services; Save the Children Federation USA; and Action Aid The Gambia. Other NGOs working in agriculture in The Gambia include Canadian Universities Service Overseas (CUSO), CARITAS, Freedom From Hunger Campaign, and the Methodist Mission Agricultural Program. In addition, Annex D provides an overview of two organizations that have mandates concerning NGO coordination: The Association of Non-Governmental Organizations (TANGO) and the Advisory Committee for Coordination of NGOs (ACCNO).

2. Institutional Issues

a. Institutional Placement of the ANR Program

The ANR Program's level of operation within the MNRE received careful consideration by the PAAD design team, particularly its possible placement within MNRE Planning Unit. The latter could be problematic for several reasons:

(1) the Planning Unit's mandate is confined to MNRE, while the ANR Program activities cross into the Ministry of Agriculture (livestock, soil and water management);

(2) the respective responsibilities between the Planning Unit and the Environment Unit within MNRE itself are still evolving. ANR Program objectives and activities clearly span the functions of both Units. By placing the ANR Program in one unit, the risk of developing too narrow a focus could emerge. On the other hand, placing the ANR Program at the Permanent Secretary level facilitates program linkages between both Units, as well as the MNRE technical departments.

(3) the Planning Unit, for all practical purposes, consists of one newly-appointed Principal Planner who only officially took up his post in May 1992. While it is certainly envisaged that the ANR Program will play a major role in strengthening this new unit, placement of the Program at the Permanent Secretary level will better facilitate this process in the long run, by permitting the Program to work across all MNRE units and departments.

(4) placing the senior ANR technical assistants at the same level as UNSO's Advisor would facilitate coordination, since both have mandates to work across all MNRE units and departments.

In short, given the scope of the ANR Program, which crosses departmental/unit boundaries within MNRE as well as crosses ministerial boundaries, the most rational placement of the ANR Program, and the Policy Advisor, is with the MNRE Permanent Secretary.

b. Financing GOTG Operating Costs

USAID wants to avoid direct financial support to GOTG recurrent budgets (personnel and operating costs). The ANR Program hopes to avoid this by specifying NPA conditionalities which will improve program budgeting within MNRE and MOA and ensure the more rational release of funds to these ministries by the Ministry of Finance and Economic Affairs. ANR Program activities which will necessitate adequate funding of these ministries include policy studies and the promotion of NRM technologies in the rural areas. Thus, the success of the policy reform agenda vis-a-vis program budgeting could have a great deal of significance for the successful implementation of the ANR Support Project.

c. Coordination of NRM Planning Across Ministries

The GOTG has been wrestling for some time with the problem of coordinating natural resource management planning. The MOA Department of Planning was originally created to support the former Ministry of Agriculture and Natural Resources. When the ministry was split into MOA and MNRE, the Program Planning and Monitoring Unit (PPMU) retained its mandate for both the agriculture and natural resources sectors. However, because the PPMU was staffed by MOA employees and MOA housed its offices, MNRE expressed concern that its needs were given less priority than those of MOA. MNRE requested, and was granted, approval by the Ministry of Finance to create its own Policy Analysis and Planning Unit. It is, as yet, unclear just how the two agencies will work together. During ANR Program implementation, further

discussions between MNRE and MOA are required to determine just how the Department of Planning and MNRE's Planning Unit will collaborate on natural resources planning in general and ANR Program activities specifically.

d. NGO-Government Coordination

In adopting an ANR Program strategy to expand NGOs' role in village development care must be taken to ensure proper coordination between government and NGOs. Government itself has yet to elaborate a strategy for pursuing its stated objective of participatory resource management, much less the role NGOs can play in the process. The ANR Program will break new ground in helping to clarify the respective roles of the Government and NGOs. It will also take explicit steps to strengthen the technical expertise of participating NGOs in the area of natural resources management.

B. Social Soundness Analysis Summary

While the Institutional and Political Analysis (Annex D) discusses the principal organizations and agencies (governmental and non-governmental) at the national-level, the Social Soundness Analysis focuses on the rural communities and those aspects of their social structure relevant to the ANR Program.

1. Village Social and Administrative Structure

The Gambian rural population resides within a system of village settlements surrounded by agricultural fields. Despite a dramatic evolution of the Gambian farming system from subsistence food production to mixed food and cash crop systems, the structure and function of the village has remained largely intact. The alkalo traditionally plays the dominant leadership role in village administration, assisted by the village council of elders (which generally excludes women). The alkalo is generally the oldest male member of the oldest patrilineage in the village. To a large extent, the strength of the village social fabric has allowed the traditional council to evolve and remain intact as a viable institution.

Paralleling this traditional administrative structure are the Village Development Committees (VDCs). In theory, VDCs are responsible for planning, programming and implementing all village development projects. In practice, however, their strength and effectiveness vary considerably from village to village. Although VDC membership is open to all citizens, members are usually selected by the alkalo and very few VDC members are women.

The participation of women in village affairs is primarily through women's kafos. Kafos are recognized indigenous community associations whose formation and membership are based upon age, gender, ethnicity, and village status. Village kafos also carry out communal village improvement projects and, for this reason, are frequently targeted by NGOs to plan and implement rural development programs. Women's kafos exist throughout the country. Although they have traditionally emphasized family or village social events, many kafos have evolved into strong communal development groups. Women's kafos have been particularly successful as vehicles for the expansion of adult literacy, sesame production and marketing, and gardening. They have also been tapped to introduce new agricultural production technologies and to channel credit.

2. Tenure and Allocation of Natural Resources[7]

In the rural areas of The Gambia, customary rights of tenure are protected under the Land (Provinces) Act. Village boundaries for farmland are readily identifiable by the alkalo and village elders. Permission must be obtained from the alkalo to clear and farm land within village boundaries. Land allocation at the compound level is divided between communal fields and personal fields. As long as an individual remains a member of the household, control over the plot's use and the right to the output remains with the individual.

There is much greater conflict potential with respect to borrowed lands. Historically, immigrant lineages acquired land through long-term loans from founding families, and while the landowner may reclaim uncultivated fields at any time, this appears to rarely happen. Conflicts arise, however, in areas where productive land is becoming scarce or where lands have been improved (with orchards, irrigation canals, wells, etc.). The potential for such conflicts may be leading landholders to loan land on a more short-term, rather than long-term, basis. The insecurity of tenure implicit in short-term control over land is an important constraint to promoting improved technologies and this phenomena will be the subject of land-tenure studies during the course of the ANR Program.

Forest and most grazing lands are considered by rural communities to be open-access, with few, if any, restrictions attached to their use. However, the degradation of the forests

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[7]This section, and subsequent sections on security of tenure and conflict resolution (in Section D, Social Issues for the ANR Program) draw heavily from the discussion and conclusions contained in: Bruce, J., et. al. 1990. "Tenure Constraints and Opportunities in Natural Resource Management in The Gambia". Land Tenure Center, University of Wisconsin-Madison.

has led to efforts, albeit not entirely effective, on the part of the State to control cutting. At the same time, increased development of irrigated agriculture, population growth, drought, and increased numbers of cattle have "compressed" grazing resources, and herders and cattle owners throughout The Gambia complain of a shortage of grazing opportunities. Herders' access to the river is being choked off as the customary tracks (which were once commonly a mile wide) are being constricted by the expansion of cultivated lands. Inevitably, conflicts have resulted as moving herds damage crops, particularly dry-season rice and vegetables. Many cultivators of these crops are women.

3. Beneficiaries and Potential Losers

Among the ANR Program benefits which should accrue to local communities are: (i) direct control over access, use, and disposal of common-use trees and forest products; (ii) revenues from disposal of forest products; (iii) improved productivity of grazing lands resulting in a healthier, more productive herd; (iv) increased and sustained agricultural production through the application of appropriate soil and water conservation techniques; and (v) improved infrastructure and social welfare through initiatives financed from forest product and rangeland royalties administered locally. Women, in particular, will benefit in the long-term. As forest lands regenerate, women, as the primary collectors of fuelwood, will be able to find wood closer to home.

An estimate of the number of ANR Program beneficiaries has been made based on projections derived from the ANR Program's Economic Analysis. By Project Year 5, it is assumed that 2,806 hectares will be under various forms of improved management. Based on current land use patterns, this would be composed of 1,263 hectares in improved rangeland or pasture land, 982 hectares in managed forest, and 1,908 hectares in crops (including tree crops). Taking only the 1908 hectares in crops, this would translate to 477 households benefitting from improved management by Year 5 (assuming an average farm size of four hectares per household). This would also mean that the ANR Program would be working in 19 villages (based on an average participation of 25 households per village). It is estimated that, by Year 10, approximately 1500 households in 60 villages would benefit. By Year 25, the number of benefiting households would reach over 19,000 in nearly 800 villages. These spread rates are considered realistic, and conform to the expected outputs contained in the logframe.

Ironically, many of the ultimate beneficiaries of the ANR Program may perceive themselves to be losers in the near term, since the current "mining" of the natural resource base would necessarily be curtailed. Similarly, urban consumers of fuelwood could see the price of that commodity increase. Other potential

losers may be wood cutters and transporters, to the extent that they cannot pass on the increased stumpage fees to consumers. Livestock owners would bear the short-term burden of controls over access to grazing. Small farmers could be hurt in the short-term by restrictions on their ability to enter and crop new areas with methods which are environmentally unsound. Land owners may be pressured to relinquish some land for common management. Again, while these are short-term losses, these same groups will benefit in the long term. The current system of resource destruction is simply not sustainable.

From the information currently available, there is no reason to believe that specific ethnic groups or income classes will suffer disproportionately, or unfairly from either the policy reform component, or the field-level activities of the ANR Program. Attention must be paid, however, to ensuring that rural women and the landless are not excluded from participation in and the benefits of the project.

4. Distribution of Benefits

Promoting participatory resource management is not simply a question of empowering "the community as a whole", since communities are not homogeneous. Each has its own diversity of special interest groups with sometimes compatible and sometimes conflicting objectives. Therefore, one cannot assume that all members of a village will perceive the value of forests equally. Women may view the resource differently than men, farmers differently than cattle owners, Fulani differently than Mandinkas, and the wealthier differently than the poorer members of the community. However, if all members of the village do not regard themselves as equal shareholders in the common property, a common management plan will not work. Consideration of these village realities, particularly those dealing with gender issues, will be required in planning field activities supported by the ANR Program.

Given the heterogeneity of Gambian communities, it would be unwise to specify, up front, local institutions that will be the focus of field activities under the proposed ANR program. It is probable that the locus of activities will vary, depending upon the relative strengths and weaknesses of various community groups and the experience of NGOs in working with them. While working with VDCs and kafos appears to show the most promise for implementing resource conserving technologies, the role played by traditional leadership groups, i.e. the alkalo and the village council, will be significant. In any case, as the first step towards introducing a development program, priority should be placed on understanding the unique setting and political infrastructure of a community. The choice of a village organization through which such programs will be channelled should evolve from this process. NGOs are better placed than

USAID project designers to do this as program implementation unfolds.

Outsiders, such as government and NGOs, can play a role in helping communities to set up a system to manage forest resources in a clear, secure and equitable fashion. Ultimately, however, decisions concerning the distribution of benefits among community members are the primary responsibility of the community itself. The danger that elite groups may abrogate the rights of a project's intended beneficiaries, especially if the value of the land or resource in question increased significantly as a result of the project's investment, is present. Regular and open dialogue should help to flag this concern early in the process.

5. Gender Issues Concerning Natural Resources Management

The impact of the ANR Program holds significant potential for women, since they rely heavily on the products coming from common lands. Women are the primary managers of small ruminants and often tether their animals in the commons. As the primary gatherers of firewood and other tree products, women depend upon open access to forests. Women also have important roles in agro-forestry through the introduction of live fencing in vegetable gardens and in trees/orchards planted within or adjacent to the gardens.

The traditional view that women are generally subsistence producers, while men produce the cash crops, does not hold in The Gambia. Women have some responsibility with all major crops produced in The Gambia, although their level of involvement and responsibility differ by crop and by geographic region. However, while women are involved in cash crop production, control over these crops is an issue. There has been a tendency for men to take control of traditional women's crops when their cash value increases. Of particular note is men's entrance into rice production, traditionally a women's crop used for family subsistence and trade among women. Men became involved when dry-season irrigation was introduced, and women were effectively relegated to participation as hired labor. Men are also becoming involved in commercial gardening, again, sometimes at the expense of women's control over the crop. Customary laws governing tree tenure also have important implications for women. Trees may not be planted on borrowed land, since trees establish ownership of the land. Because women rarely "own" the land they are using -- especially women's groups cultivating a collective garden -- it is difficult for them to fully develop a garden containing both vegetables and fruit trees.

The traditional hierarchy in village administration and customary laws presents some constraints to fully integrating women as participants in and beneficiaries of ANR Program activities. These constraints are not insurmountable. As

explained in the Social Analysis Annex, the customary laws governing conflict resolution are sufficiently flexible to permit the effective development of common resources. What will be required during project implementation is careful consideration, at every step of the way, of the implications of a particular intervention for women. The traditional system is adaptable enough to allow solutions to these concerns. It is up to the project implementation team (i.e. the GOTG, NGOs and USAID/Banjul) to make the system work for all parties concerned.

C. Economic and Financial Analysis Summary

This annex covers both the Economic and the Financial Analysis of the Gambia Agriculture and Natural Resources Program. The purpose of an economic analysis is to determine whether or not a project is a worthwhile investment for the country as a whole, i.e. whether the outputs from the project are sufficiently valuable to warrant the expenditure of scarce resources. The financial analysis examines a project from the point of view of the individual investor and it has two purposes. One is to determine if the project is financially viable and has a positive monetary value to the participants (i.e. the stream of benefits is sufficiently larger than the stream of costs to provide a financial incentive to the Gambian farmer to participate). The second purpose is to determine if the stream of projected costs can actually be paid for by the participants, as envisioned in the project implementation schedule.

The rigorous analysis of the support project assistance portion of the ANR program shows a positive net present value at a discount rate of 10 percent, and an internal rate of return of 21 percent, for both the economic and financial analyses (taking into account the "environmental salvage value"). This rate is sufficient to recommend project implementation. There was practically no difference between the economic and financial analyses, since the markets involved are freely functioning with little or no taxation or subsidies.

The analysis uses the standard cost-benefit approach. However, it is based on a model which relies on particularly solid data and incorporates a strong analytical understanding of the biological and economic relationships of resource-conserving technologies in the Sahel. This data and the analytical underpinning are the result of a series of modelling efforts of resource-conserving technologies in the Sahel conducted for AID, beginning in 1987.

The non-project assistance (NPA) component of the program is a lump-sum distribution (cash transfer). In perfectly competetive economies, lump-sum distributions have no net welfare effects (i.e. net present value and internal rate of return analysis are neither relevant nor appropriate). In this project,

the transfer is contingent upon several conditionalities, which, when met, should increase the efficiency of the Gambian economy, and thus there would be a positive net benefit from the cash transfer. In most cases, these benefits are intermediary benefits (e.g. increased government efficiency at delivering technologies to farmers, policies that provide incentives to produce) and would be reflected in increased on-farm production. To a large extent, these benefits are captured in the economic analysis of the Support Project Activities. However, there are some broader benefits which could occur that might fall outside the benefit stream estimated in the economic analysis of the Support Project (e.g. efficiency gains from eliminating the export monopoly of the Livestock Marketing Board). These additional benefits would be difficult to measure, and for purposes of this analysis, it is assumed that there are no net benefits from the cash transfers.

Sensitivity analyses were carried out on the following variables: (a) the prices of all commodities; (b) the discount rate; (c) the spread rate; (d) the soil degradation rate; (e) the life of project budget and its distribution; and (f) crop yields. Results were most sensitive to assumptions about product prices and the spread rate. Within realistic limits, the variation observed was not sufficiently great to undermine the viability of the proposed project.

The Economic and Financial Analysis Annex also discussed the limitations of the analysis undertaken, including the difficulties of valuing non-market benfits (e.g. increased biodiversity) and the problem of accounting for inter-generational equity using standard cost-benefit analysis. The conclusion from this discussion is that even the acceptable economic returns calculated for the proposed ANR Program understate the potential benefit of the ANR Program to The Gambia.

D. Summary - Overview of Resource-Conserving Technologies in The Gambia

The purpose of this annex is to briefly review some of the technologies and practices that might be promoted by the proposed ANR program, particularly under the NGO grant component. It describes and reviewes the experience in implementing these technologies and practices in The Gambia and in the Sahel. The technologies and practices discussed include:

- Soil and water conservation technologies, including water retention structures, anti-salinity barriers, waterways and water diversions, check dams, and contour dikes and ridges.

- Agroforestry practices, including the introduction of

multi-purpose tree and shrub species (e.g. field trees and alley cropping), block plantations, fruit and nut trees, windbreaks, live fences and hedges, and border and roadside plantings.

- Improved agronomic practices, including contour planting, micro-catchments and tied ridging, improving soil fertility through manuring and fertilizer use, and mulching.

- Integrated forage crop production and pasture management Schemes (controlled grazing on rangelands, the control of burning on rangelands, provision of water access points for livestock, fodder banks, and the utilization of crop residues

The above technologies are illustrative of those that would be promoted through the NGO grants program of the ANR Support Project.

E. Summary of the Forestry Sector Analysis

The forest resources of The Gambia are declining at a rapid pace. Most forest classes, in particular "closed forests", are either disappearing or degrading into the "open forest" class, an intermediary step on the way toward savanna bushland. The activities of humans, such as brush fires, legal and illegal overcutting of firewood, and overgrazing on fragile lands, are the major reasons for this decline. These actions are not deliberately rapacious, but due rather to the fact that traditional land use systems are no longer adequate to meet daily needs in the face of increased populations and changing climate. In addition, institutional constraints have limited the ability of the Forestry Department to attain its management objectives.

The Forestry Department within MNRE is responsible for the stewardship and management of The Gambia's forests. The Department currently has a staff of 145. This staff is considered inadequately prepared to effectively supervise and manage the remaining forests while simultaneously developing and initiating new programs in the rural forestry sector.

An increase in staff numbers alone is not enough to increase the effectiveness of the Forestry Department. Both current and future staff need adequate training to meet the demands on the Department. While two-year certificate training in forestry is desirable, it needs to be complemented with inter-disciplinary training in a variety of topics and extension methods.

The Forestry Department has implemented a number of projects over the years, both with and without donor assistance. These

include the establishment of multi-purpose forestry plantations near Banjul, village woodlot schemes, initiation of a national tree planting day and school reforestation efforts. At present, the major effort in the sector is through the Gambian-German Forestry Project (GGFP), which was initiated in 1979.

The GGFP has two main areas of focus: Forest Park, or Natural Forest Management; and Community Forest Management. The initial years of the project focused on Natural Forest Management, including the collection of baseline data on the forestry resources of The Gambia through aerial photography and a comprehensive forest inventory. After this, six of The Gambia's sixty-six Forest Parks (Reserves) were brought under more intensive management, with a seventh serving as a research station. These management activities included demarcating the forest boundaries, establishing fire breaks with live fencing, extracting dead wood for use in project sawmills, and enriching plantings with local species. Although detailed quantitative data is not yet available to fully evaluate these efforts, the biophysical changes in the Park areas are extremely encouraging.

The Community Forest Management concept has evolved over the last five years. Under Community Forest Management, local communities with Forestry Department-approved forest management plans are exempted from paying license and other royalty fees on forest products in areas under management, and are allowed to retain the revenues generated from the sale of forest products in a Community Development Account. Overall, communities regain, through proper management, those usufruct rights generally denied to them under the Forestry Act of 1977. The process of Community Forest Management is designed to be participatory and cross-sectoral, so as to foster responsible village natural resources management.

The Forestry Department is also responsible for the establishment and collection of fees from licenses, permits, royalties, and the sale of confiscated illegal forest products. These fees and penalties are not high enough to reflect the true economic value of the forest products, nor do they deter the illegal felling and transport of these goods.

The Forestry Department will be directly supported through long- and short-term training, non-project assistance, and appropriate long- and short-term technical assistance under the ANR Program. Specific activities to be undertaken in the forestry sector include: (a) degree training in forestry; (b) certificate training for six foresters; (c) short-term training, internships, site visits and workshops, (d) studies of the forestry fee structure and consumption markets to determine the real value and replacement cost of forest products; (e) a study of the forestry fee collection system; and (f) a study of non-timber products and their value to the national and local economy.

Forestry related conditionalities to affect positive change within the Forestry Department and the MNRE include: (a) an evaluation of options for retaining a portion of forest and park revenues within the resource-generating sector; (b) increasing forestry fees to reflect the real economic value and replacement costs for forest products, and (c) based on the results of a wider replication of Community Forest Management, amend the forestry legislation to recognize this land use option as distinct under law.

F. Summary of the Livestock Sector Analysis

This analysis highlights the main issues in the livestock sector of The Gambia, and indicates areas where problems might be alleviated or solved by means of policy reforms or support activities.

Challenging the Conventional Wisdom: With about 300,000 head of cattle and a similar number of small ruminants, the livestock sector of The Gambia is important economically and nutritionally. It is also, however, a source of environmental degradation. The conventional wisdom concerning the sector is that the main motivation for keeping cattle is a socio-cultural one (e.g., prestige), which leads to insufficient off-take and, in turn, to overstocking and degradation of the ranges. Hence there is a perceived need to develop an efficient mixed-farming system, which usually implies systematic de-stocking.

This conventional view is challenged, as on closer examination most Gambian cattle producers are seen to be motivated primarily by commercial considerations, and already produce within integrated agro-silvo-pastoral systems. Producers need help mainly to manage their grazing resources more efficiently; restrictions on cattle numbers should not be imposed on them. Forced de-stocking through quota systems are, in any event, almost impossible to enforce.

The Off-take Issue: The assumption that the off-take is low primarily because of social reasons is not supported by field and other evidence. For example, there appear to be few surplus marketable males in the herds, which is an indicator of regular sales. On the other hand, the low number of bull calves in relation to breeding cows is probably partially due to high calf mortality. Records also show that cattle sales respond to fluctuations in crop prices, as falling crop prices (e.g., of groundnuts) have resulted in higher cattle sales, and vice versa.

Production Inefficiencies High calf mortality has been mentioned as evidence of production inefficiency. Animals are also finished for market in three or more years, rather than the normal two years. The calving interval could be halved, and milk production could be increased accordingly. Poor nutrition and

disease also reduce production. However, remedying these inefficiencies might only increase the maximum potential Gambian off-take from about 20 percent (some 5-8 percent below the maximum world standards) to 22 percent. The actual off-take rate today is about 8 percent but, as noted, mainly for economic and technical reasons rather than social ones.

Market Constraints The view that a parastatal marketing monopoly (the Livestock Marketing Board, LMB, established under the Livestock Marketing Act of 1975/76) and exploitative middlemen are serious constraints on the cattle market is also not fully supported by evidence. The LMB technically has an export/import monopoly, but it does not exercise it. Cattle exports have fallen, but mainly because markets for trypano-resistant Gambian cattle have been undercut by breeding efforts elsewhere in West Africa. The LMB has constrained the export of hides through an inefficient collection system. The LMB buys cattle, but it only controls about 10 percent of the market. In general, given the sufficient numbers of sellers and buyers of cattle, serious market distortions can not be attributed to a few "exploitative middlemen".

In summary, the LMB has not acted as a serious market constraint, but evidently it has the potential to be one. At the same time, it does not seem to serve a useful purpose, such as stabilizing cattle or meat prices. It is recommended, therefore, that the ANR Program condition its abolition through the repeal of the Livestock Marketing Act of 1975.

The Public Abattoir Issue The LMB controls the Abuko abattoir through which most of the inspected meat for the greater Banjul market passes. However, the Abuko abattoir is not a monopoly under the Act of 1975. The abattoir is, however, inefficient, mainly because of low throughput. Its privatization has long been advocated, and should be encouraged under the ANR Program. It is hoped that it will occur with the repeal of the 1975 Act proposed earlier. Repeal of this Act should be accompanied by a simultaneous legal transfer of the ownership and management of the abattoir to an interim entity, presumably under the Companies Act, pending full privatization of the abattoir.

Efficiency of the Meat Market In general, private butchering and marketing of meat in The Gambia is relatively efficient. An unusually narrow (in the 35 to 45 percent range) margin between farm-gate and consumer prices indicates that the cattle and meat industry is extremely competitive. No policy interventions to increase market efficiencies are warranted.

Grazing Management Reforms The key technical constraints to efficient and sustainable use of Gambian grazing resources are (a) insufficient watering points; (b) repeated range burning, which provides short-term benefits such as parasite control and new growth, but long-term deterioration of soils and vegetation;

and (c) depleted range lands. De-stocking, even if it were otherwise desirable and feasible, would not address these constraints.

As an approach to reforms, the ANR Program advocates local control of grazing resources by Livestock Owners' Associations (LOAs), as pioneered by the UNDP-funded (and now self-financed) Rangeland and Range Development Project at Dankunku (1986-92). This approach involves long-term leases of grazing lands from the Districts, controlled grazing (at Dankunku, 3,150 ha of land were fenced for deferred grazing), a plan for better water distribution, and reduction of range burning. Dankunku has also shown that the immediate generation of collective revenues, in that case via a dairy plant, is essential to the success of the scheme. In some parts of The Gambia, full integration of grazing and forestry will also be necessary, as the Gambian-German Forestry Project has revealed. LOAs should also control the use of grazing fees, and eventually be able to collect cattle head taxes for investment in grazing improvements. The sense of ownership and control is crucial to the ultimate success of such schemes. The ANR Program foresees a revision of natural resources legislation with these aims in mind.

G. Summary of Improved Public Sector Budgeting Annex

Annex L discusses the structure of the MOA and MNRE budgets, the GOTG budgeting process and presents the rationale for the policy reforms proposed under the ANR Program dealing with the coverage of recurrent costs for those MNRE and MOA programs that will be involved in the ANR Program and in the implementation of the GEAP. These are Conditionalities 4,5, and 6, which are presented in Section III-D (B), "Program Components - Rationalization of Funding and Revenue Generation for Natural Resources Management".

Annex L also describes the Program Budgeting System (PBS), previous experience implementing the PBS in the MOA, and proposes additional support project assistance to continue the implementation of the PBS system in the MOA and expand it to the MNRE. The proposed assistance is described in Section III-E (c), "Support for Improved Public Sector Budgeting".

H. Summary of Environmental Education Annex

Annex M outlines the elements of an environmental education program, summarizes ongoing environmental education efforts in The Gambia, and describes proposed assistance to environmental education under the ANR Program. The principle element of this assistance will be a long-term advisor (2 person years) in environmental education, supported by short-term technical

assistance. The proposed assistance is fully described in Section III-E (d), "Environmental Education".

I. Summary of Information Systems Annex

Annex N discusses the need for environmental information and monitoring and ANR Support for the MNRE's Environmental Information System. This support will have the following components: (a) support for an environmental information systems (EIS) facility; (b) aerial photography and interpretation, and (c) support for specific data collection efforts (e.g. on burning practices and fuelwood consumption and marketing). The annex also discusses monitoring responsibilities for both the NPA component and for the NGO grants program. The proposed assistance for environmental information systems is summarized in Section VII, "Monitoring and Evaluation Plan".

J. Summary of the Wildlife Conservation/Kiang West Annex

The Department of Wildlife Conservation (DWC) within MNRE is responsible for the stewardship of the Parks and Protected Areas in The Gambia. This System comprises three national parks, one bird preserve and one nature reserve, of which only the Abuko Nature Reserve is a fully functioning visitor area. The DWC will be involved in the ANR Program in several ways:

- DWC will be closely involved in any planned community development activities bordering on the Kiang West National Park. It is envisioned that some of the funds allocated to NGO Grants will be directed at those communities;

- The ANR Program proposes NPA conditionality aimed at permitting the DWC to retain a portion of the revenues gained through gate receipts from the Park and Protected Areas System, and that park development funds be established as treasury accounts for use by the DWC for investments in the park and protected area infrastructure and for programs with communities bordering the park.

- The DWC, as with other Departments within MNRE, will benefit from short-term technical assistance (primarily linked to laying the groundwork for the attainment of the policy conditionality), long-term training under the ANR program (certificate training for selected DWC staff members), and short-term and in-country training under the ANR Support Project.

K. Environmental Analysis Summary

Under the ANR Program (635-0235) and Support Project (635-0236): (1) the non-project assistance is recommended for categorical exclusion; (2) the NGO Grants program is recommended for deferral until subprojects are submitted; and (3) all other Support Project assistance is recommended for categorical exclusion. The IEE can be found in Annex S.

L. Summary of Constraints Analysis

1. Overview

The constraints analysis for the ANR Program is based on over a decade of USAID experience in the agriculture and natural resource sector, continuing discussions with the GOTG, NGOs and other donors, and on a large number and wide range of studies, evaluations and sector assessments. The full constraints analysis appears in Annex Q: Constraints Analysis.

2. Global Problem: Degradation of the Natural Resource Base

Agriculture in The Gambia involves extensive land use and limited investments in inputs. As a result, productivity per hectare is low and total food production has remained static over the years. In fact, it may have fallen slightly, even as the area cultivated has increased. The fundamental causes of this poor performance have been a high rate of population growth, coupled with the steady decline in rainfall that has been prevalent throughout Sahelian Africa in recent years. Traditional NRM practices in The Gambia have not been able to adapt effectively to these two long-term trends. With increased population, the demand for agricultural and natural resource products has grown. Decreasing fallow periods have led to loss of soil fertility and increased erosion. The extension of agriculture onto more marginal lands has decreased the amount of land available for livestock, and increased the pressure on the remaining rangeland. The ever increasing demand for fuelwood and forestry products has led to a decline in the forest cover, and significant biodiversity loss.

There is clearly little that USAID can do to address the problem of declining precipitation in Sahelian countries. Similarly, the size of Gambia's population and its growth rate must be taken as a given, at least in the near and medium term. Given these global parameters, it becomes imperative for The Gambia to manage its limited natural resources as effectively as possible. There are, however, a number of sector constraints to sound resource management which greatly exacerbate the impact of declining rainfall and population pressures and accelerate the

degradation of the land. Some of the constraints considered to be within the "manageable interest" of the Mission and which will be addressed by the proposed ANR Program are:

- Public sector policies that hinder sustainable natural resource management;
- Inadequate information base for natural resource policy formulation;
- Limited capacity to extend available technologies to the rural population; and
- Failure of the government to most effectively employ its limited resources.

Additional sector constraints identified but which are outside of USAID's manageable interest are discussed in Annex Q. They are being addressed by other donors, by other USAID projects, or exceed USAID limited resources. These constraints include:

- Inefficiencies in input delivery and output marketing systems as the country transitions from the public to the private sector, and as a result of a poorly developed transportation system.
- Human capital constraints in rural areas, including low levels of rural education and seasonal labor shortages.

USAID believes that resolving the policy and institutional constraints that are within the Mission's manageable interest will provide sufficient impetus to stimulate the economic growth of the sector.

3. Sector Constraint One: Public Sector Policies that Hinder Sustainable Natural Resource Management

The MNRE recognizes the importance of decentralizing authority and empowering local communities to properly manage their resources. USAID has also concluded from its own experience and studies that institutional, legal, and financial constraints effectively discourage local communities from using their resources in a rational and sustainable manner (e.g., avoiding overgrazing, excessive burning, deforestation, and the destruction of biodiversity in natural areas).

The problems caused by centralized authority over natural resource management are manifest. In The Gambia, the central government is the legal owner of pasture and forest lands and of the products derived therefrom. Villagers thus perceive limited control over resources in their vicinity.

In the forestry sub-sector, licenses are approved by division-level Forest Committees, of which there are five in the country, yet this is not adequate to give local communities effective control over the harvesting of trees in their area. Once a permit is sold to the tree-cutter, villages have no right to refuse admission to their forest. This is exacerbated by the fact that the bulk of the revenues that are collected go to the central Treasury.

Consequently, local communities have little incentive to conserve or protect the forest resources. At the same time, none of the revenues retained at the central level go to the Department of Forestry, the government unit empowered to encourage sustainable forestry management practices. Thus, the central government has little direct incentive, and inadequate institutional capacity, to police the forests.

The licenses, permit fees and royalties levied on forest products, although increased in mid-1991, do not reflect the replacement cost of the resource. In recent years revenues from all three sources for the entire country have averaged less than 200,000 dalasis/year (approximately $25,000) Recently, the government has substantially decreased the number of licenses issued in an effort to curb the destruction of the forest resource. The licenses are ostensibly non-transferable and permit only the license holder to cut the wood (theoretically limiting the amount of harvesting that takes place). However, these restrictions are routinely violated and the enforcement of the forest pricing regulations which takes place is minimal. Restrictions on cutting live wood are bypassed by killing the trees with fire or by ringing them, so that they can be subsequently cut. Fines for illegal cutting are so low that they do not constitute a deterrent.

The end result of this system has been to encourage the destruction of the resource and to discourage planting and protection. The system favors certain wood cutters and transporters, as well as the consumer of wood products, at the expense of forest resources, by providing wood products at prices that do not reflect their real value. The current GOTG-mandated fee structure does not account for replenishment costs and directly undermines any efforts to institute sustainable community forestry.

A similar situation exists for range resources. Lack of any monetary charge for access to range or pasture land encourages individuals and the community to exceed the sustainable carrying capacity of the land. Limited legal control over rangeland inhibits villagers from rationally using the resources. No individual has any incentive to defer grazing (to allow pasture to recover) or reduce his herd size, for example, because other producers will capture the benefits that result in terms of increased forage availability. The absence of revenues precludes

investments by individuals and communities to protect or improve the range.

The villager's perceived limited authority over pasture and woodlands makes their regular burning difficult to control. While limited burning of the rural surface area has been an accepted cultural practice in The Gambia for generations, anecdotal evidence suggests that the area burned annually and the intensity of the burning have increased in recent decades. According to the draft Environmental Action Plan, up to 85 percent of Gambian woodlands and range is burned annually. The instigators of bush fires include hunters, farmers who do not have the resources to plow thick vegetation, and herders who wish to eliminate tsetse flies or generate the green offshoots which grow after burning. While this system may yield short-term benefits, in the long run it is devastating for range and forest resources. Continuous and persistent bush fires not only destroy annual and perennial grasses, but also the very soil humus upon which the regeneration of grasses depends. Extensive burning, particularly late in the season, greatly reduces the biomass needed to maintain soil fertility and reduce soil erosion. It also is the greatest contributor to the destruction of the forest cover. Experiments have shown that control of burning allows a significant increase in range carrying capacity during the dry season.

Constraints posed by the legal and administrative structures governing the land tenure system constitute another important obstacle to long-term increases in production from agriculture and natural resources. Current formal and customary land tenure laws have not had time to adjust to the growing scarcity of prime agricultural land. Currently, customary tenure appears to provide reasonable security of tenure on-farm, at least for customary owners and for members of lineages which have borrowed land for very long periods. Short-term land borrowers, however, of whom many are women, are finding their tenure rights and hence incentives for investment increasingly limited. Borrowing periods are becoming shorter, as the owners increasingly fear that the borrowers will begin to make claims on the lands. Tenure for tree planting, necessary both for increased fruit production and agro-forestry techniques, is especially insecure. Also, with the dramatic growth in vegetable gardens, farmed almost entirely by women, a host of new and pressing tenure issues has arisen.

Tenure constraints are particularly pronounced in the areas of rangeland and forest management. For the over-exploitation of forest and pasture resources to be reduced, communities must be legally empowered to manage, in conjunction with relevant GOTG technical departments, these natural resources.

Although the existing land tenure system presents certain constraints, recent analyses have concluded that large-scale land

reforms would be unwise. A recent USAID-funded study by the University of Wisconsin Land Tenure Center has concluded that the existing tenure system is flexible enough to evolve in response to changing socio-economic needs. Further research is planned to examine this question, however.

USAID believes that elimination of this set of public policy constraints is within the "manageable interest" of USAID to address. The ANR Program will focus on helping the GOTG to refine policy and legislation to enhance community responsibility for protecting and improving the natural resource base. Selected policy reforms covering local community-based forest management and wood cutting fees can be initiated in the medium term, while other areas will require further analysis before concrete recommendations are proposed.

4. Sector Constraint Two: Inadequate Information Base for Natural Resource Policy Formulation

Ecological and related socio-cultural systems in The Gambia are very complex and may not be adequately understood. At the same time, at both the national and local level, there is very limited capability to analyze and monitor the status of the natural resource base or improve understanding of these ecological and social systems.

As a result of this lack of information, the seriousness and scope of environmental degradation have not in the past been fully appreciated by the government and many donors. This lack of knowledge can cause decision makers to underestimate the long-term implications of their actions or opt for short-term benefits even though the long-term implications are seriously negative. The GOTG Program for Sustained Development explicitly stresses the lack of an information and data base for natural resources.

The process initiated with the preparation of the Gambia Environmental Action Plan (GEAP) will be instrumental in increasing understanding of natural resource use in The Gambia. The GEAP has underlined the need for more knowledge of the dynamics of the natural resource base, as well as for improved analytical capacity to understand the forces at play in the use of natural resources.

5. Sector Constraint Three: Limited Capacity to Extend Available Technologies to the Rural Population

The Gambia possesses a sufficient number of agricultural and natural resource technologies which are ready for dissemination to the rural sector. Efforts to extend these technologies, however, have been less than fully effective. The reason for the unsatisfactory performance of the government's extension effort

in the agriculture and natural resource sectors is primarily the inability of the GOTG to effectively support its staff with transportation, equipment, fuel and other inputs.

While this has been a serious constraint on the GOTG's efforts to disseminate agricultural and natural resource technologies, village-based, grass roots NGOs have demonstrated an ability to mobilize resources and reach farmers. Examples of successful NGO efforts include the promotion of sesame production and improved rice varieties, field testing of technologies from the GOTG's Department of Agricultural Research and NGO land use plans for villages on the North Bank.

There do remain weaknesses in NGO extension efforts which the projectized-component of the proposed ANR Program hopes to address. NGOs generally have few staff trained in natural resource areas. In addition, there has been the propensity, at least in the past, of some NGOs to implement "gift-based projects", that is, projects which provide heavily subsidized services to beneficiaries. Such an approach encourages a pattern of dependence, undermines efforts at replication, and, in the long-run, is not sustainable.

Given constraints on public sector resources and effectiveness, USAID proposed to address the "dissemination of technology" constraint by fostering the establishment of strong linkages between NGOs and GOTG agencies through support for joint in-country workshops and village-based activities aimed at grass roots issues and approaches for addressing them.

6. Sector Constraint Four: Failure of the Government to Most Effectively Employ Its Limited Resources

The GOTG's expenditures in agriculture and natural resources account for only 4.8 percent of the 1991 recurrent budget and 18.2 percent of the 1991 development budget. These expenditures are virtually all for personnel. Much of the investment in The Gambia's agriculture is coming from donors, which cover most of the MOA's non-personnel recurrent cost and investment budgets.

Those resources that are invested in the sector by the GOTG are not always managed adequately. Realistic budgets are not developed and expenditures often do not correspond to program budgets. Explicit performance indicators are not monitored in the recurrent budget. In the absence of effective government-wide budgeting, the Ministry of Finance and Economic Affairs (MFEA) often exercises discretionary authority to withhold and/or reallocate funds during the year. This has further reduced the incentive for program budgeting and has resulted in sub-optimal employment of those limited financial, human, and material resources that are available. Critical programming constraints go unaddressed, sometimes undermining the effectiveness of entire programs. The heavy dependence on donors means that the

availability of donor resources dictates areas of investment and that the varied and idiosyncratic agendas of the individual donors set ministry priorities.

After reviewing this constraint, and taking into account its experience in this area under the GARD project, USAID has determined that addressing the planning and budgeting constraint under the ANR Program is within AID's manageable interest. Under the GARD Project, a system to enable the MOA to accurately monitor its budgetary requirements and expenditures was developed. This system, the Program Budgeting System (PBS), links the MOA budget to program, project and activity indicators. It also identifies budgetary requirements and expenditures for each MOA activity, project and program. Recently, the World Bank initiated a Public Expenditure Program (PEP) exercise with four priority ministries - Health, Education, Agriculture and Works. The PEP, like the PBS, will assist ministries to link priorities with budgetary resources. The two systems complement one another (the PBS provides the data required for an effective PEP). Their proposed implementation will be closely coordinated.

The ANR Program proposes to include conditionalities aimed at ensuring that funds for the MOA and MNRE are available and released by the MFEA in a timely manner and in amounts that are linked to realistic program budgets developed by these two ministries. By extending the PBS to MNRE along with the MOA, the ANR Program will assist GOTG efforts to more efficiently direct its limited material and human resources to achieve greater transparency and program impact. The ANR Support Project proposes to continue the implementation of the PBS in the MOA and expand it to the MNRE.

IX. CONDITIONS AND COVENANTS

The following are proposed conditions and covenants, as they would appear in the Grant Agreements. Please note that conditions precedent for tranches III to V are subject to modification during program implementation. The list of subsequent tranche conditions precedent, therefore, should be considered indicative.

A. Tranche Conditionality

1. First Tranche

Prior to any disbursement of the Program Grant or to the issuance by AID of documentation pursuant to which disbursement for the first tranche of $2.0 million will be made, the Grantee will furnish to A.I.D., except as the parties may otherwise agree in writing, in form and substance satisfactory to A.I.D., written evidence that:

- **The Cabinet has approved the Gambia Environmental Action Plan (GEAP).**
- **The Cabinet has designated a body with the authority to coordinate the implementation of the GEAP.**
- **The MOA and MNRE have developed action plans for implementation of the Program Budgeting System (PBS) which include assignment the required staff and, for MOA, evidence of a 1991/92 annual financial report.**
- **The Livestock Marketing Act of 1975 has been repealed by Parliament.**

2. Second Tranche

Prior to any disbursement of the Program Grant or to the issuance by AID of documentation pursuant to which disbursement for the second tranche of $2.0 million will be made, the Grantee will furnish to A.I.D., except as the parties may otherwise agree in writing, in form and substance satisfactory to A.I.D., written evidence that:

- **The GOTG has completed a GEAP investment program, reviewed it at a sectoral Donors' conference, and included initial projects in the FY 1993-94 Public Investment Program.**
- **The GOTG makes a committment to study: (i) present and projected forest and park revenue flows; (ii) options for the retention of a portion of revenues by the resource-generating sector (including line agencies, independent boards, and communities); (iii) personnel and operational expenditures needed by GOTG to implement the natural resources management component of the GEAP.**

3. Third Tranche

Prior to any disbursement of the Program Grant or to the issuance by AID of documentation pursuant to which disbursement

for the third tranche of $1.0 million will be made, the Grantee will furnish to A.I.D., except as the parties may otherwise agree in writing, in form and substance satisfactory to A.I.D., written evidence that:

- **Based on multi-year analysis, the FY 1994/95 recurrent budgets for specific MOA and MNRE programs have been developed.**

- **Forestry fees and royalties have been revised to more accurately reflect true costs, and the schedule has been gazetted.**

- **The GOTG has undertaken and reviewed the studies specified in the Second Tranche Conditionalities, developed an action plan, and begun implementation of the appropriate recommendations.**

4. Fourth Tranche

Prior to any disbursement of the Program Grant or to the issuance by AID of documentation pursuant to which disbursement for the fourth tranche of $2.0 million will be made, the Grantee will furnish to A.I.D., except as the parties may otherwise agree in writing, in form and substance satisfactory to A.I.D.:

- **Copies of annual financial reports by MOA and MNRE which analyze FY 1994/95 expenditure against originally budgeted amounts, make recommendations for then ongoing budget process, and include results of effort at establishing program evaluation.**

5. Fifth Tranche

Prior to any disbursement of the Program Grant or to the issuance by AID of documentation pursuant to which disbursement for the fifth tranche of $3.0 million will be made, the Grantee will furnish to A.I.D., except as the parties may otherwise agree in writing, in form and substance satisfactory to A.I.D., written evidence that:

- **Legislation concerning forestry, wildlife, livestock, lands and other natural resources and relevant Regulations has been revised in order to enable local communities to assume management responsibility for these resources, subject to government monitoring.**

B. Covenants

In addition to the above conditions, the following special covenants will be included in the Grant Agreement.

1. **Continuance of Actions Taken by the Grantee in Satisfaction of Conditions Precedent**

The Grantee will not in any way discontinue, reverse, or otherwise impeded any action it has taken in satisfaction of any condition precedent set forth in the Grant Agreement, except as may be mutually agreed to in writing by the Parties.

2. **Position of the Senior Policy Advisor**

The Grantee agrees that the individual holding the position of Senior Policy Analyst will report directly to the Permanent Secretary of the Ministry of Natural Resources and Environment.

3. **Grantee actions with regard to training participants**

(a) The Grantee agrees to maintain the position, salary and benefits of each participant trainee financed under this grant thoughout the duration of his/her training.

(b) The Grantee agrees to provide A.I.D. prior to each participant's departure for training an agreement signed by such participant trainee with the Cooperating Country that he/she shall return to The Gambia immediately upon completing his/her studies to work for the Cooperating Country for a minimum of one (1) year for every one (1) year of training received/financed hereunder, unless the duration of committment is amended in writing by the Parties.

(c) The Grantee agrees to ensure that all personnel trained under the Project will be appointed to established positions which are commeasurate with their newly acquired skills on or prior to the conclusion of their training.

(d) The Grantee agrees to support the establishment of a committee for the selection of participants for academic training. This committee will be composed of representatives of USAID/Banjul and of the relevant Ministries of the GOTG. The committee will meet no less than twice anually with the purpose of selecting and approving training participants and evaluating the on-going progress of participants in training programs. Should any trainee experience academic or personal problems which are obstacles to his/her successful completion of training, the committee will review the case and make recommendations for future action with regard to funding of the training.

4. **Grantee Resources for the Project**

The Grantee agrees to provide or cause to be provided for the Project all funds, in addition to the Grant, and all other resources required to carry out the Project effectively and in a timely manner. These resources will include, but not be limited to, office space and furniture, personnel and transportation.

5. **Project Evaluation**

The Parties agree to establish an evaluation program as part of the project. Except as the Parties otherwise agree in writing, the program will include, during the implementation of the project and at one or more points thereafter: (a) an evaluation of the progress toward attainment of the objectives of the project; (b) identification and evaluation of problem areas or constraints that may inhibit such attainment; (c) assessment of how such information may be used to help overcome such problems; and (d) evaluation, to the degree feasible, of the overall development impact of the project.

6. **Reports, Records, Inspections, Audit**

a. The Grantee shall furnish to A.I.D. such reports and information relating to the Program and the Support Project and to this Agreement as A.I.D. may reasonably request.

b. The Grantee shall maintain or cause to be maintained, in accordance with generally accepted accounting principles and practices consistently applied, books and records relating to the Special Dollar Account. The Grantee shall permit A.I.D. or any of its authorized representatives to inspect such books and records at such times as A.I.D. may require. Such books and records shall be maintained for three years after the date of last disbursement of the Grant by A.I.D.

c. At a minimum, representatives of the parties shall meet no less frequently than on an annual basis to report and review the progress of the Program. Prior to each such meeting, the Grantee shall transmit to A.I.D. the reports and records of financial and program activities specified in the Agreement.

d. The Grantee agrees to hold policy discussions with A.I.D. whenever impediments to program success have been jointly identified by the Grantee and A.I.D. in future studies or implementation of the Program, with the goal of eliminating such impediments to Program success.

D. Negotiating Status

At the time of the approval of this PAAD, the terms of the ANR Program have been negotiated at the technical level. However, the Grant agreement has not been accepted formally by the Government of The Gambia. Therefore, there may be some disparities between this document and the final Grant. In every case, the Grant is the decisive document.

ANNEX A: LOGICAL FRAMEWORK

ANNEX A: LOGICAL FRAMEWORK
AGRICULTURE & NATURAL RESOURCES PROGRAM
(635-0235) and (635-0236)
Life of Project: From FY 92 to FY 97
Total U.S. Funding: $22.5 million

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal: Increased rural income	1. 2 percent annual increase in rural incomes.	Integrated household survey of income and expenditures to be administered by Central Statistics Department with support of the World Bank's Social Dimensions of Adjustment (SDA) Project. Survey to be administered biennially beginning in mid-1992, with first results expected in March 1993.	No abrupt policy shifts counteract the current economic policy of liberalization. Verification dependent upon successful implementation of World Bank SDA Project.
Program Purpose Sustainable increases in the value of production on land under improved resource management practices.	Conditions indicating purpose has been achieved - End of Program Status (EOPS)[1] 1a. Six new Community Resource Management Agreements (CRMA) concerning forest and rangeland in place, involving 1,000 hectares of natural forest management and 1,200 hectares of grazing management. The increase in value of sustainable production per hectare on these lands exceeds 25 percent after two years of operation, primarily from discontinuation of burning. 1b. CRMA's concerning improved agricultural practices bring 1,750 hectares under new practices, with an increase in sustainable production of 25 percent. 1c. CRMA's concerning reclaimed agricultural lands expand lowland crop production by 150 hectares. 1d. Greater than half of the increases in value of production in villages with CRMA's accrue to women.	1a. NGO baseline and EOP data collection in target villages with CRMA's. Value of production for lands under CRMA's is estimated by NGO's, with ANR assistance, prior to the commencement of CRMA. On-going NGO monitoring of target areas will include data collection on adoption rates, bio-physical conditions, and changes in value of production. 1b. (same as 1a.) 1c. (same as 1a.) 1d. (same as 1a)	1. Rainfall patterns will be normal (based on a 6 year average) during project implementation.

[1] EOPS are derived principally from the PAAD Economic and Financial Analysis, Annex F. Long-term improvements in productivity and value of production are apparent in the 20 year time horizon of the economic analysis. For the purpose of monitoring ANR Program success, the EOPSs have been written with rounded numbers, although the economic analysis uses exact figures.

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program Sub-Purpose A Establishment of a policy and regulatory environment that is conducive to the adoption of improved natural resource management practices.	1. The process for communities and the GOTG to undertake CRMA's is simplified and standardized.	1. NGO Program Coordinator reports on status of protocol development for establishment of CRMA's.	
	2. Fee, license, and royalty schedule for forestry products revised and enforced.	2. Modification of schedules and changes in amounts collected in fees, licenses, and royalties reported to USAID.	
	3. Protocols developed and systems in place to facilitate close working relationship between line ministries, NGOs and local communities. Five NGO's outside the ANR Program draw upon the GOTG technical expertise from DLS, SWMU, and Forestry Department.	3. Reports of NGO Program Coordinator and GOTG reports.	
	4. Implementation of Program Budgeting System in the MNRE and MOA results in more efficient delivery of services to natural resource managers.	4. PBS Advisor provides special reports on program evaluations in MOA and MNRE and conformity of budgeting changes to GEAP agenda.	
	5. Flows of GOTG-collected revenues from forest and livestock fees/taxes encourages more sustainable production.	5. Special studies, Contractor reports.	
	6. Improved planning and coordination for natural resources at the national level.	6. Mid-term and final evaluation, GOTG reports.	

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program Sub-Purpose B Increased adoption of improved natural resource management practices.	Conditions indicating purpose has been achieved: 1a. 1,000 hectares of natural forest under CRMA's (increasing to 3,800 hectares by year 10) 1b. 1,200 hectares of rangeland under CRMA's (increasing to 5,000 hectares by year 10) 1c. 50 hectares in fruit and nut orchards under CRMA's (increasing to 200 hectares by year 10) 1d. 175 hectares of cropland under CRMA's protected by windbreaks (increasing to 653 hectares by year 10) 1e. 1,000 hectares of cropland under CRMA's stabilized (increasing to 3,800 hectares by year 10) 1f. 150 hectares of cropland under CRMA's reclaimed (increasing to 500 hectares by year 10) 1g. Number of hectares damaged by fires in forest/range areas under CRMA's declines by 75 percent.	1. NGO baseline and EOP data collection in target villages with CRMA's.	

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Output A: Improved Natural Resources Planning			
1. Gambia Environmental Action Plan (GEAP) approved and being implemented.	1a. GEAP endorsed by Cabinet Decree. 1b. GEAP steering committee meeting regularly to evaluate progress of project interventions. 1c. Projects related to the Environmental Action Plan are incorporated into the Public Investment Program. 1d. PIP has a system for incorporating environmental assessments into proposed projects. 1e. Formal approval of the mandate for the MNRE Planning and Environment Units.	1. USAID Program Manager assessment, based on policy dialogue with GOTG and reports from MNRE on status of outputs.	1. Continued UNSO support for MNRE environment unit will contribute significantly to achievement of objectives vis-a-vis the GEAP and strengthening of that unit.
2. MNRE Planning and Environment Units made fully operational and natural resource oriented departments strengthened.	2a. Staffing needs identified for selected MNRE and MOA departments (e.g. MNRE Forestry and Wildlife Departments, Environment and Planning Units, MOA Livestock Department) to enable them to implement the natural resources program outlined in the GEAP. 2b. Increased numbers of staff in MNRE and MOA departments dealing with natural resources issues (actual numbers to be based on conclusions in needs assessment).	2a. Study of staffing requirements completed. 2b. Assessment of MOA, MNRE, Policy Analyst, and USAID program manager.	

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
3. Strengthened capacity of MNRE to carry out environmental policy studies and needs assessments required under the Environmental Action Plan.	3a. Research studies completed under auspices of ANR Program covering selected topics, such as: o Analysis of legislative reforms needed o Rationalization of issues for forestry policy reform o Land tenure and environmental management o Devolution of authority	3a. Analyses completed; copies submitted to USAID. Independent evaluation of quality and appropriateness of the analyses undertaken.	
4. Information collection and availability for natural resource planning improves.	4a. Appropriate environmental information and monitoring system in place in MNRE. 4b. Aerial survey completed, including the following outputs: o Updated land resource inventory, including forest inventory; 4c. Special data collection studies, as prioritized by the MNRE, are undertaken.	4. Submission to USAID of copies of analyses completed using improved information system. Independent evaluation of quality of the output.	o Assumes GTZ co-financing of aerial photography and forest resource inventory.
<u>Output B</u>: Empowerment and Pricing Policy Reforms 1. Authority over local forest and pasture resources devolved to local communities.	1a. 10 local communities implementing Community Resource Use Agreements following approved protocols. 1b. Forestry law modified to facilitate the allocation of usufruct rights (rights to output of forests) to local communities for ungazetted forest land once these communities have developed and are implementing an approved forest management plan. 1c. Regulations modified to permit local communities to lease rangeland from the government on a long-term basis.	1a. Submission of reports by Forestry Department, participating NGOs, and other agencies involved with CRMAs. 1b. Modification of appropriate statutes reported to USAID. Independent assessment of appropriateness of law as enacted. 1c. Submission of reports by Livestock Department, participating NGOs, and other agencies involved with CRMAs.	o Collaboration between GTZ and ANR Program assumed. Continued involvement of GTZ in community forestry would greatly facilitate achievement of these outputs.

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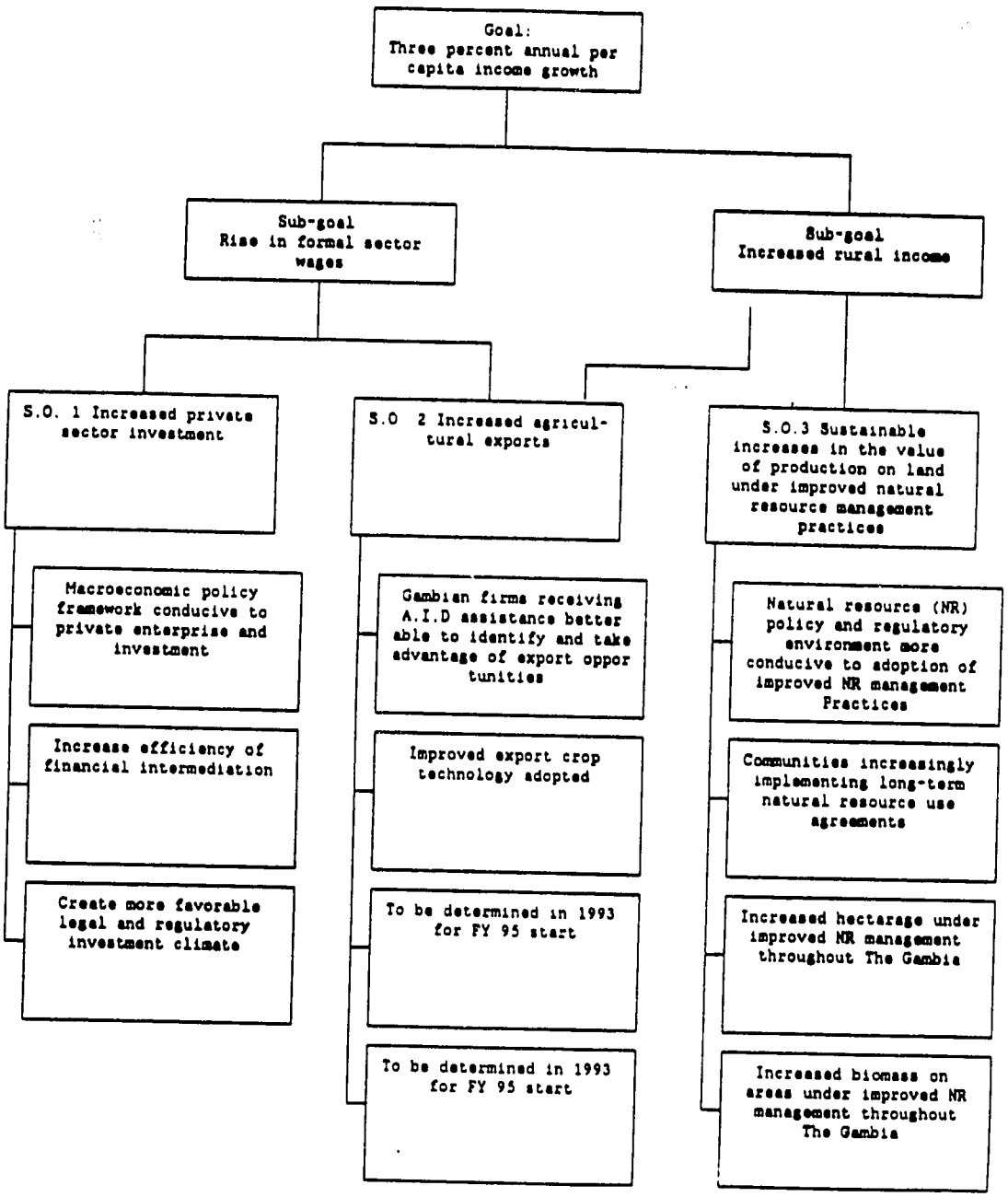
NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
2. Pricing structure for forest products modified in order to discourage their indiscriminate depletion.	2. Royalties and fees for cutting and hauling wood adjusted and gazetted. The nature and scale of the revisions will be based on analyses conducted during project implementation.		o That the price of fuelwood to urban consumers can increase to a level that is adequate to provide incentives for resource renewal without causing unbearable hardship on the urban poor.
3. Principal of local grazing fees introduced.	3. 8 communities have range management programs involving the use of grazing fees for community range management and livestock production programs	3. NGO reporting records for villages with CRMA's.	
4. GOTG studies present and projected forest and park revenue flows, develops options for the retention of a portion of revenues by the resource-generating sector and prepares an action plan for implementation of appropriate options.	4a. Scopes of work are approved for the studies and appropriate recommendations implemented. 4b. Studies completed and reviewed, action plan developed, and implementation of appropriate recommendations has begun.	4. GOTG and Controller reports.	
Output C: Elimination of the monopoly of the LMB on the importation and export of livestock.	Repeal of the 1975 Livestock Marketing Act.		

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Output D: GOTG budget reforms			
1. Budget programming improvements (PBS/PEP) implemented at MOA and MNRE.	1a. Data required by PBS/PEP system routinely collected and analyzed for MOA and MNRE. Reports prepared for MOA and MNRE management on results of analysis. 1b. Funding for MOA and MNRE investment and recurrent budgets guided by PBS/PEP analysis.	1. Finalized budgets submitted to USAID.	1. Continued World Bank support for the implementation of the Public Expenditure Program at the level of the Ministry of Finance will facilitate achievement of outputs.
2. GOTG budgetary allocations for natural resources management activities in MNRE and MOA adequate to implement GEAP.	2a. Analysis of MNRE and MOA funding and staffing needs to implement natural resources program completed. 2b. MNRE and MOA funding levels adjusted based on needs assessment. 2c. Ministry of Finance releases budget tranches to MOA and MNRE in a timely manner.	2. Reports from MOA and MNRE on budgetary allocations. PBS Advisor input.	
Output E: Natural Resources Interventions.			
1. Improved natural resource management practices identified, adapted and disseminated.	1a. Natural resource packages for the following technologies identified and adapted (extension tech sheets prepared): contour planting; contour dikes; water diversion and anti-salinity barriers; windbreaks, live fences, and other agroforestry techniques; fruit trees and woodlot establishment; composting and residue management, and deferred grazing. 1b. Active extension efforts underway through NGOs to disseminate the above technologies. 1c. Research and analysis refines the protocol for establishing CRMA's.	1. Surveys and reports by NGOs and Forestry and Livestock Departments on status of field activities, adoption levels, and impact on productivity. Independent evaluation of results of field-level activities.	1. Implementation of World Bank ASSP Project will complement ANR Program by supporting MOA recurrent budget and permit ANR Program to focus on selected MOA departments.
2. Active environmental education efforts underway.	2a. Environmental education refined in school curriculum. 2b. Quality and diversity of environmental programs presented to village groups increases. 2c. Conflicting environmental education messages are resolved.	2 Independent assessment of environmental education program.	

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Inputs/Resources:			
A. Non-Project Assistance	approx. $10,000,000		
B. Support Project Assistance			
1. Technical Assistance	approx. $ 4,458,000		
Long-Term			
a. PSC Program Manager	1-a. 4.0 py		
b. MRM Senior Policy Advisor	1-b. 4.0 py		
c. Grants Administrator	1-c. 4.0 py		
d. Environmental Educ Spec	1-d 2.0 py		
e. PBS Advisor	1-d. 2.5 py		
e. Resource Inventory Spec.	1-e. 1.0 py		
2. Short-term TA	ST: 62.0 pm approx. $ 1,424,000		
3. Training	approx. $ 1,804,000		
a. Degree training in U.S.			
b. Short -term U.S.			
c. 3rd country ST training			
d. 3rd country academic			
e. In-country training			
f. Regional Networking			
4. Policy Studies	approx. $ 400,000		
5. Commodities	approx. $ 972,000		
6. NGO grants	approx. $ 1,800,000		
7. Peace Corps OYB Transfer	approx. $ 200,000		
8. Land tenure Center OYB Transfer	approx. $ 250,000		
9. Evaluations/Audits	approx. $ 200,000		
10.Contingencies/Inflation	approx. $ 992,000		

Gambia Program Logframe



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ANNEX B: PROGRAM CONDITIONALITY

ANNEX B: PROGRAM CONDITIONALITY

This Annex presents and justifies the proposed Program Conditionality and Interim Steps. Per AID/W guidance (STATE 181408 [ECPR Issues Paper]), the conditionalities identified for Tranches One and Two are considered to be firm. All other conditionalities should be considered as tentative, providing general guidelines and a plausible scenario on how the objectives of the policy component of the Program can best be met. NPA conditionalities are meant to be flexible, permitting adaptation to changing circumstances. The flexibility inherent in the outer-year conditionalities, coupled with active monitoring and assessment programs, should ensure that the Mission and the GOTG can develop the optimum mixture of policy reforms and other conditionalities so as to attain Program objectives.

In general, the conditionalities retained under the ANR Program have been refined to include only those that are clearly definable and implementable, that are supported by key GOTG entities (most notably the MNRE), that are likely to have a substantial impact, and that are within the manageable interest of the Mission.

As emphasized in the Program Description, the ANR Program has two basic thrusts (hereafter referred to as "Themes"):

I. The strengthening of the national policy and institutional framework governing natural resources; and

II. The creation of an enabling framework that will allow local communities to assume management control of, and benefit financially from, local land-based resources.

The Annex is, therefore, structured and the conditionalities grouped and described so as to reflect these two principal themes.

THEME I. NATIONAL POLICY AND INSTITUTIONAL FRAMEWORK

At the national level, the conditionalities are designed to promote and support the following broad policy reforms (hereafter and in the Policy Matrix referred to as "Sub-themes"):

A Completion, approval and implementation of the Gambia Environmental Action Plan (GEAP);

B Rationalization of funding and revenue-generation for natural resources management; and

C Liberalization of natural resources markets.

SUB-THEME A Completion, Approval and Implementation of the GEAP

ANR conditionalities (as complemented by the Support Project Assistance) promote the completion, formalization and implementation of the GEAP, and thus The Gambia's effort to reverse the degradation of natural resources. The key steps towards the achievement of this objective and their relevance to the ANR Program are summarized in Table 1 (see page 30 of the PAAD; the numbering of the conditionalities on the Matrix and in the text and tables of this Annex is identical).

Table 1. Completion, Approval and Implementation of the GEAP

Date	GOTG Action	Relevance to ANR
Late 1992	GEAP is completed and approved by the National Environmental Management Council.	Interim step; essential to fulfillment of Conditionality 1.
Dec. 1992	**Cabinet approves the GEAP**	**One of the four conditions for disbursement in Tranche 1**
Dec. 1992	**Cabinet designates a body with the authority to coordinate the implementation of the GEAP**	**One of the four consitions for disbursement in Tranche 1**
1992-93	Investment program for GEAP is finalized by the GOTG	interim step; essential for meeting Conditionality 3
July 1993	**GOTG has completed a GEAP investment program, reviewed it at a sectoral Donors' conference, and included initial projects in the FY 1993-94 PIP**	**One of the two conditions for disbursement in Tranche 2**

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Conditionality 1: **Cabinet approves the GEAP**

Rationale The ANR Program is designed to complement the GOTG efforts in the environmental sector. As the GEAP has been the main focus of GOTG efforts in the natural resource sector, it is a prerequisite for successful implementation of the ANR Program.

Conditionality 2: **The Cabinet designates a body with the authority to coordinate the implementation of the Gambia Environmental Action Plan (December 1992)**

Rationale MNRE has overall responsibility for environmental policy formulation, management and coordination. However, the broad nature of the programs proposed under the GEAP means that these various programs do not fall clearly within the functions and responsibilities of a single ministry, department, or agency. Various ministries will be involved in GEAP-related programs or projects, each of whom will have its own sectoral objectives and constraints. Faced with "environmental" projects that are inevitably intersectoral and interministerial, there exists a fundamental institutional problem of effectively coordinating implementation of the GEAP programs and projects. The most effective solution would be to establish a strong coordinating agency within the existing institutional structure, and to vest that entity with overall coordinating responsibility.

The GEAP proposes that the National Environmental Management Council (NEMC) be given a broader coordinating role and that the Environment Unit within the MNRE be designated as the Secretariat of that body. This would place the Environment Unit, which has coordinated the preparation of the GEAP, in a central role vis-a-vis its implementation. The operational aspects of this role will need to be elaborated. Thus, for example, "coordination" might include the arbitration or technical resolution of conflicts between sectoral interests, such as between forestry, wildlife and livestock. Definition of the coordinating mandate also requires a decision concerning the position within the government hierarchy of the particular agency so designated. In establishing this mandate, a clear delineation will need to be made between the role of the Environment Unit, and that of the MNRE Planning Unit, which is charged with national natural resources policy analysis and formulation.

The ANR Program includes significant components of the action program proposed by the GEAP. Thus, for USAID's Program to be effective it will be essential for one GOTG agency to be able to coordinate and interact adequately with donors, all government agencies and the NGO community.

Conditionality 3: **GOTG has completed a GEAP investment program, reviewed it at a sectoral Donors' conference, and included initial projects in the FY 1993-94 Public Investment Program (PIP) (July 1993)**

Rationale. Once the GEAP document has been accepted by the government as the foundation for the strategy for environmental planning and management, the critical work begins. The implementation of the GEAP and the design of a strategy to address the issues identified during the analytical phase of the work is the most complex part. As with all interministerial and intersectoral plans, there is a risk that the GEAP may not go beyond a general statement of intentions. There is also the risk that environmental planning may evolve along a path at variance with the country's normal development planning and budgeting system. Experience in other countries has shown that it is essential that the investment implications of environmental action plans are fully integrated into the country's planning and budgeting processes, and into the overall donor/government strategy programming.

At the same time, the investment program must follow logically from the analysis contained in the GEAP, and the project actions identified should correspond to the types of actions broadly identified in the GEAP as necessary to begin tackling the priority issues. The GEAP design process will generate many project ideas, not all of which follow the strategy lines laid down in the GEAP. Given the cross-sectoral nature of the work and the input from many public sector sources, this can be expected. The initial stages of preparing the investment program consist of prioritizing the activities which will be proposed to the donor community for funding, and retaining those which really fit the strategy of the GEAP and address priority issues.

As the GEAP evolves from a definition of the environment and natural resources of The Gambia to the outline of a strategy and eventually to an investment program, it is essential that a firm, direct, and active link be made to the Public Investment Program and to other investment planning exercises at the sectoral and ministerial levels. The incorporation of environmental investment plans into the PIP would help to improve the quality of project planning related to natural resources and the environment, by encouraging the review of overall capital and personnel requirements, and recurrent cost implications, of the proposals developed.

During the development of the investment program, there has been a focus on donor coordination and support of the priorities as identified by host government. The GEAP, as approved, will provide official guidance on those areas which the GOTG feels are

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priorities for action on the environmental front. At the same time, the existence of the GEAP framework, will make coordinated action by the donor community easier. This can facilitate pooling of intellectual and financial resources for greater effectiveness of action. It can also ensure that the host government will not have to contend with a multitude of different programs with different objectives proposed for the same sector and addressing the same issues.

A sectoral Donors' conference is a necessary step to begin formalizing the level of support that the GEAP will attract. The conference, at which the GEAP will be discussed and the proposed investment program initially reviewed, will usually result in indications of interest from different donors for different actions proposed in the initial investment proposal. Once it is fairly certain which donors will be supportive and what areas interest them, projects and programs can be developed in coordination with the host government and along the broad policy directions outlined in the GEAP.

SUB-THEME B Rationalization of Funding and Revenue-Generation for Natural Resources Management

This Sub-theme covers two important topics. One is the funding of government activities in the natural resources sectors, and the effective use of this funding. The other topic concerns improved revenue generation from natural resources for the combined purposes of (a) generating funds to maintain and develop those resources and (b) introducing more realistic pricing of those resources. Resource pricing that more accurately reflects the replacement and social costs of resource use is a form of resource management, in that it allows market forces to curb wasteful demand, reveal scarcities and stimulate the transformation of raw materials into higher-value-added products.

The GOTG must ensure that its activities in the natural resources sector are adequately funded, and that its investments in the sector are used effectively, particularly given the limited personnel and material resources available. This requires the use of realistic, program-oriented budgets, the tracking of expenditures, and the measurement of performance relative to expenditure levels. At the same time, careful planning and budgeting is meaningless if the ultimate allocation of funds to the ministries bears no relationship to the line ministries' budgets or funding requirements.

For an effort such as the ANR Program, sound budgeting by the implementing agencies and the sufficient allocation of resources by the Ministry of Finance and Economic Affairs (MFEA) is particularly crucial as the ANR Program will not provide funds

directly to support recurrent operational costs. However, if the GOTG fails to provide the operating funds needed for implementation, the activities envisioned will not take place, and the ANR Program may fail in part unless some contingency funding of operations is built into the Program.

To ensure adequate funding of the GOTG's resources investment program, the ANR Program will condition non-project assistance on: (1) the maintenance and development of a sound program budgeting system (PBS) within both the MNRE and MOA; and (2) an increase in the recurrent budget levels for specific MNRE and MOA programs related to the implementation of the ANR Program and the natural resources agenda outlined in the Gambia Environmental Action Plan. The amount of increase will be based on an independent analysis of funding needs to be carried out early in the project's life and will take into account recurrent cost support being provided by other donors (e.g. the World Bank ADP III Project and the UNSO support for the MNRE)..

Under improved revenue generation, the ANR Program includes conditionalities designed to (1) establish the principle and the operation of dedicated Development Funds for forest and park management and replenished from the respective resource fees; (2) introduce revised royalties and fees for forest products.

Subtheme B, Topic 1: Improved Budgeting Systems

The scheduling of the GOTG actions and their relevance to the ANR Program foreseen under this subtheme are summarized in Table 2.

Table 2. Steps towards improved bugeting systems

Date	GOTG Action	Relevance to ANR
Late 1992	MOA and MNRE in collaboration with a PBS Advisor develop a timetable for implementation of PBS.	Interim step; essential for the fulfillment of Conditionality 4.
Dec. 1992	**MOA and MNRE develop action plans for implementation of the PBS which include assignment of required staff and, for MOA, evidence of a 1991/92 annual financial report.**	**One of the four conditions for disbursement in Tranche 1.**
July 1994	**Based on a multi-year analysis, develop the FY 1994/95 recurrent budgets for specific MNRE and MOA programs.**	**One of the three conditions for disbursement in Tranche 3.**
Early 1994	MOA and MNRE develop criteria for pilot program evaluation.	Interim step; essential for meeting conditionality 6.
July 1995	**Publication of annual financial reports by MOA and MNRE which analyse FY 94/95 expenditures against originally budgeted amounts, make recommendations for ongoing budget process, and include results of effort at establishing program evaluation.**	**Conditionality 6. If met, disbursement in Tranche 4.**

Conditionality 4: **MOA and MNRE develop action plans for implementation of the PBS which will include assignment of required staff and, for MOA, evidence of a 1991/92 annual financial report. (December 1992)**

Rationale The Program Budget System (PBS) is a management tool that enables a ministry and its departments to more rationally plan, budget, and monitor program expenditures, and to ultimately evaluate the impact of those expenditures. Its intent is to prioritize program activities, and hence improve resource allocation. Support for the continuation of the PBS in the MOA, and its introduction into the MNRE is proposed under the ANR Support Project. This effort will be supplemented by non-project assistance. Conditionality under the first tranche would be based upon:

a. A reaffirmation by the MOA of its intention to continue development of the PBS system and a formal agreement by the MNRE to implement it. In this, both ministries will establish a timetable for implementing the PBS and define explicit outputs (e.g. the contents of annual financial reports).

b. Assignment, by both the MOA and MNRE, to their respective PBS programs of a senior level staff member whose primary responsibility will be to coordinate and further develop the PBS program. Preferably, these individuals will be at the Grade 9 level (Senior Assistant Secretary or Senior Accountant). For MOA, the position would be effective as of the 1992/93 budget. MNRE would agree to propose the position for the 1993/94 budget and would assign another staff member to handle the PBS program in the interim.

Both the establishment of a timetable and concrete targets, and the assignment of appropriate staff, are considered critical for the ultimate success of the PBS system.

Conditionality 5: **Based on a multi-year funding analysis, develop the FY 1994/95 recurrent budgets for specific MOA and MNRE programs. (July 1994)**

Rationale Given the importance of agriculture in the Gambian economy and the severity of the environmental problems facing the country, combined with the emphasis placed by the Program for Sustained Development on protecting the natural resource base, USAID/Banjul believes that the recurrent budget for key programs within the MOA and MNRE is inadequate. In designing the ANR Program, the limitations on effective action due to the lack of

adequate manpower in key areas and the lack of operational resources within these two ministries were manifest.

It is proposed, therefore, that NPA funds be conditioned on an explicit adjustment of the recurrent budgets for selected programs within the MNRE and MOA to ensure that both the ANR Program and the natural resources agenda outlined in the Gambia Environmental Action Plan can be implemented as planned. The level of this adjustment would have to be negotiated with the GOTG and based on an analysis, using available information, of multi-year funding requirements of the two Ministries involved in natural resources. This analysis, which would be carried out in late 1993 by representatives of the MFEA, MOA, MNRE and outside consultants financed by the ANR Program, is essential to the fulfillment of Conditionality 5. It would entail:

(1) A review of the organizational structure of MOA and MNRE and the current effective staffing and operational funding levels for the various units (taking into account off-budget expenditures, as well as the recurrent and development budgets);

(2) An estimate of the multi-year requirements in terms of personnel and operational expenses for implementing the USAID-funded ANR Program, as well as the natural resources agenda outlined in the Gambia Environmental Action Plan (this analysis will take into account recurrent cost support being provided by other donors); and

(3) An examination of funding flows and constraints, including an estimate of the impact of embargoes and delays in issuing warrants on the implementation of programs in these two ministries and the potential for modifications to the allocation system that would ensure the timely availability of funds.

<u>Conditionality 6:</u> **Publication of annual financial reports by MOA and MNRE which analyze FY 94/95 expenditures against originally budgeted amounts, make recommendations for the ongoing budget process, and include results of effort at establishing program evaluation (July 1995)**

<u>Rationale</u> The benefits of the PBS System come in several ways. First, the increased rigor in program planning imposed by the PBS system is inherently beneficial in terms of resource allocation. The use of the PBS permits the individual program managers and senior ministry staff to construct more rational budgets which

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clearly allocate resources among programs. Monitoring expenditures enables the agency to identify discrepancies between the original budget and the ultimate expenditure of resources. This information can then be used to inform the planning process. However, a potentially significant impact would come from monitoring achievements toward established goals and determining the cost-effectiveness of activities undertaken. The MOA already envisions some steps in this direction, involving the establishment of a progress reporting system (performance against the original program timetable). Such management information would help senior staff to determine whether additional resources are needed to achieve stated objectives, or whether a given program should be terminated as unrealistic.

The success of both MOA and MNRE in implementing the PBS system is best measured by the preparation of annual financial reports which include a breakdown of the original budget, an analysis of the expenditures against that budget, and recommendations for changes in the upcoming budget. Since the MOA will have had more experience with the PBS, it should be at the point where it can begin experimenting with program evaluation, in an effort to evaluate the cost-effectiveness of its programs. The content of the annual financial reports, and the timetable for producing them, will be established as part of the conditionality for the release of the first Tranche.

Subtheme B, Topic 2: Improved revenue generation

The actions foreseen under this topic are summarized in Table 3.

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Table 3. Steps Towards Improved Revenue Generation

Date	GOTG Action	Relevance to ANR
July 1993	The GOTG makes a committment to study: (i) present and projected forest and park revenue flows; (ii) options for the retention of a portion of revenues by the resource-generating sector (including line agencies, independent boards, and communities); (iii) personnel and operational expenditures needed by GOTG to implement the natural resources management component of the GEAP (July 1993)	One of the two conditions for disbursement in Tranche 2
1993-1994	Studies to (a) adjust fees charged for licenses and permits, and to revise royalties on harvesting/transport of forest products, (b) revise forest product transport and sale prices, fees and royalties	Interim steps; of relevance to the fulfillment of Conditionality 8
July 1994	Forestry fees and royalties are revised, and schedule is gazetted	One of the three conditions for disbursement in Tranche 3
July 1994	Written evidence that the GOTG has undertaken and reviewed the studies specified in Conditionality #7, developed an action plan, and begun implementation of the appropriate recommendations.	One of the three conditions fordisbursement in Tranche 3

Conditionality 7: **The GOTG makes a committment to study: (i) present and projected forest and park revenue flows; (ii) options for the retention of a portion of revenues by the resource-generating sector (including line agencies, independent boards, and communities); (iii) personnel and operational expenditures needed by GOTG to implement the natural resources management component of the GEAP (July 1993)**

Rationale The intent of this conditionality is to study present and projected forest and park revenue flows, and develop options for the retention of a portion of revenues by the resource-generating sector.

Conditionality 8: **Forestry fees and royalties are revised, and schedule is gazetted (July 1994)**

Rationale. This conditionality will be used to formalize and officially announce the revision of fees for licenses and permits and the royalties (stumpage fees, i.e., the "price" of wood on the stump) issued or collected by the Department of Forestry.

The revision of the fee and royalty schedule will be preceded by studies of production, harvesting, haulage and other costs, as well as of the potential inflationary impact on consumer prices of fee and royalty increases. In the case of some forest products, it is possible that no revision is justified. Royalties ideally should realistically reflect the true market and social value of forest products, including the replacement cost of wood and some measure of the environmental costs of deforestation. With a formal revision of fees and royalties (thereafter ideally updated annually), the government would send market signals concerning growing scarcities, the need to reduce wastage, and the desirability of diverting some products to more valuable end uses.

More realistic pricing of forest products may also provide market incentives to invest in wood production, whether by the private sector or by the Department of Forestry itself.

Conditionality 9: **Written evidence that the GOTG has undertaken and reviewed the studies specified in Conditionality #7, developed an action plan, and begun implementation of the appropriate recommendations.**

Rationale The intent of this conditionality is to develop an action plan for implementation of the appropriate recommendations contained in the studies specified in Conditionality 7.

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SUB-THEME C Liberalization of Natural Resources Markets

Under this Sub-theme, only one conditionality has been retained:

Conditionality 10: **The Livestock Marketing Act of 1975 is repealed by Parliament (December 1992)**

Rationale. Repeal of the Livestock Marketing Act will have little immediate, far-reaching impact on natural resources, but it is a relatively simple action that would remove a potential obstacle to the free operation of markets, in turn with potential positive implications for rural incomes (cf. Program Goal and Purpose). Repeal of the Act implies primarily the elimination of the cattle import/export monopoly held by the Livestock Marketing Board (LMB) and repeal of the Act is necessary for the privatization of Abuko abattoir.

The import/export monopoly is not currently exercised, and there are no prospects that the LMB will resume exporting, although the potential to export breeding stock remains high. The abattoir is functioning, albeit inefficiently (cf. Annex H). Its privatization following the repeal of the Act may require some time; hence, this particular action should not be considered as part of Conditionality 10, only the legislated intention to do so as part of the repeal process. The interim status of the abattoir after repeal of the 1975 Act may in any event require special legislation under the Companies Act so as to clarify management responsibilities pending privatization. A review of the regulatory and advisory role of the Department of Livestock Services with a view to increasing its efficiency (1992-93) and of the options for privatizing the abattoir (1993) are two Interim Steps under this Sub-theme. The implications of the repeal are described in some detail below.

(a) Eliminating the import/export monopoly

Elimination of this legal monopoly could be accomplished relatively quickly, possibly with a one-time expenditure to GOTG of resettling the present LMB administrative (i.e., non-abattoir) personnel. This monopoly is a potential barrier to entry into the export market for a firm with the capital and experience to export breeding stock. The benefit of eliminating the monopoly is to remove one more (or at least potential) obstacle to cattle exporting. However, eliminating the monopoly will not necessarily lead to increased cattle exports. Therefore, there will not necessarily be any immediate economic benefits or any indicators to measure. If, however, a competent firm did enter the export market, it would seem reasonable to expect a significant, measurable impact.

(b) Proceed to divest Abuko abattoir:

Repeal of the Marketing Act will eliminate the LMB and will thus create the necessary condition to remove the GOTG from its inappropriate involvement in cattle slaughtering. However, the Abuko abattoir will continue to function in the same manner. There will necessarily be a transition from operations under the LMB to operations as a wholly independent firm. This transition is the privatization process. Two things must occur during this process: private investors must assume controlling ownership of the abattoir and the DLS needs to determine what role it should play.

It is not feasible simply to cease slaughtering operations. The services are neither what they should be nor what they could be. The abattoir is nevertheless an essential component of the commercial beef production infrastructure. To remove it altogether would create a hardship for the industry. The GOTC will continue to operate it while making a concerted effort to identify a potential private operator.

Privatization will benefit both consumers and producers. Consumers will have better quality meat because the DLS will be better able to regulate a private firm than another government agency. Lacking a refrigerated or freezer trade, most of the meat supply for the capital region of Banjul is dependent on daily throughput of the abattoir. Increased efficiency and throughput will lead to an increase in the supply, perhaps alleviating he chronic undersupply in the marketplace. There should be immediate improvements, but the real economic gains would be longer term. They will come as producers are better able to supply cattle to the meat industry.

THEME II. PROMOTION OF RESPONSIBLE NATURAL RESOURCES USE AT THE LOCAL LEVEL (CREATION OF THE ENABLING FRAMEWORK)

The conditionality and the progress indicators under this Theme are designed to promote and monitor progress towards local control and management of natural resources, including more direct financial benefits to local communities. This evolution towards local management of natural resources is a strategic aim of both the ANR Program and the GEAP. It involves the actual devolution of authority over resources from the central government to local communities (Sub-theme II).

SUB-THEME: Devolution of authority over forest and grazing resources

Under this sub-theme, there is only one conditionality which concerns the revision of natural resources legislation (forestry,

wildlife, livestock, lands, agriculture, etc.) so as to create the enabling legal framework for local control and management of natural resources.

Conditionality 11: **Legislation concerning forestry, wildlife, livestock, lands and other natural resources and relevant Regulations are revised in order to enable local communities to assume management responsibility for these resources, subject to government monitoring (July 1996)**

Rationale. The empowerment of local communities to participate in the protection, conservation and rehabilition of natural resources is a central thrust of the ANR Program and an important principle espoused by the GEAP. Local control of natural resources also implies more direct financial benefits for local communities, thereby creating a greater vested interest in the maintenance of these resources. Government by itself does not have the manpower, financial and material resources to protect and manage natural resources effectively. In addition, governments acting as managers of natural resources in the name of social welfare often end up repressing certain market forces that, properly marshalled, can serve as resource-management tools by revealing scarcities, preventing waste or stimulating investments in resource develop-ment.

Ultimately, of course, both government monitoring and local community responsibility are needed. On the one hand, the government must create the enabling policy and legislative framework for sustainable resource management, arbitrate among competing interests, enforce sanctions against abuses, and inform and educate the public about natural resources. On the other hand, private owners and managers of resources have a stake in the maintenance and development of those resources and thus can more efficiently provide local surveillance and protection of resources.

The ANR Program is being initiated at a time when interest in the devolution of authority over natural resources is high, and the principle is being adopted as GOTG policy as part of the approval of the GEAP. Moreover, local control over natural resources is already being put into practice by two major donor-assisted projects in forestry and range management, using in part hitherto obscure provisions of existing laws. The ANR Program is thus building on existing foundations; its aim is to facilitate the development and the diffusion of the concept of local resource management by means of both policy and other institutional interventions at the national level, and by supporting NGOs to act as catalysts between local communities and government services in the diffusion of the concept.

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The transfer of authority over natural resources from central governments to local communities requires careful pilot efforts, evaluation of these efforts, and gradual adaptation of the policy and legislative framework on the basis of this evaluation. That is why Conditionality 10, which calls for a revision of natural resources legislation, is not scheduled until 1996. Much evaluation of risks, safeguards, blockages, financial aspects, and rights and obligations of both communities and government services must precede this legislative revision.

Early experience with local assumption of management control of resources under the Community Forest Management component of the Gambian-German Forestry Project (cf. Annex G) and the Dankunku Grazing Management Project (cf. Annex H) has shown encouraging results. However, it is too early to base legislative reforms on these pilot efforts. The Grazing Project (1986-92) is further along, and points to the need to formalize the concept of long-term leases of rangelands from the Districts to Livestock Owners' Association and to study and formalize the issue of grazing fees and of the cattle head tax (cf. Annex G). The sole experience with Community Forestry Management to date, at Brefet, is in its first year, and thus an insufficient basis for proposing legislative revisions. The discussion of what these revisions might be is confined below to community forestry.

The legal basis for the pilot Brefet community forestry project is a provision of the Forestry Act of 1977 that gives the Minister (of MNRE) discretionary power to exempt local communities (with forest management plans approved by the Dept. of Forestry) from paying license fees and royalties on forest products extracted from the community area under management. Thus communities regain, under an approved forest management plan, those usufruct rights which were generally denied under the Forestry Act of 1977.

This provision of the 1977 Act seems to be adequate for the purpose of initiating other community forestry pilot projects under GGFP and as supported under the ANR Support Program Assistance. However, once the concept of community forestry has been further refined and ready to be more widely diffused, it will be advantageous to revise the Forestry Act so as to support the concept explicitly, as well as to facilitate other aspects of community forestry.

For example, a revision of the Act might eventually include the following provisions: a definition of Community Forestry Management; the right of a community to exercise this option, subject to established criteria (constitution of a local forestry committee, preparation and approval of forest management plans, residual supervisory powers of the Dept. of Forestry; etc.); financial aspects, such as set-aside of a certain percentage of the Community Forestry Fund to help support Dept. of Forestry

technical assistance; the authority of the Director of Forestry, subject to appeal, to terminate a community forestry agreement in case of flagrant abuse. The issue of integrated forestry and grazing must also be addressed.

For these reasons, Conditionality 11 will be preceded by a number of actions summarized by the following Interim steps which must be taken within the five year life of the ANR Program:

- Review options and requirements for institutional and operational changes needed to introduce long-term leases of GOTG grazing lands and to promote local control of forest and grazing resources, including safeguards for sustainable use by local communities;

- Review operation of the Livestock Development Fund and verify auditing and management standards. Review the options for transferring a portion of the Fund to local livestock owners' associations;

- Review experiences with community forestry and grazing management with the view to revising the Forest Act and other natural resource legislation that enable local control of natural resources;

- Mass media campaign on intent of revised Forest Act and other natural resource legislation that enable local control of natural resources.

NPA POLICY MATRIX
ATTACHMENT TO ANNEX B

USAID/BANJUL
AGRICULTURE AND NATURAL RESOURCES (ANR) PROGRAM

PROGRAM GOAL

Increased rural incomes

PROGRAM PURPOSE

Sustainable increases in the value of production on land under improved resource management practices

PROGRAM SUB-PURPOSE A

Establishment of a policy and regulatory framework that is conducive to the adoption of improved resource management practices

PROGRAM SUB-PURPOSE B

Increased adoption of field level natural resource planning and improved natural resource management practices

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PROGRAM THEME I *The strengthening of the national policy and institutional framework governing natural resources*	CONDITIONALITIES TARGET DISBURSEMENTS TARGET DATES				
	TRANCHE 1 $2,000,000 12/92	TRANCHE 2 $2,000,000 7/93	TRANCHE 3 $1,000,000 7/94	TRANCHE 4 $2,000,000 7/95	TRANCHE 5 $3,000,000 7/96
SUB-THEME A: Completion, approval and implementation of the Gambia Environmental Action Plan (GEAP)	***1. Cabinet approves the GEAP.*** ***2. Cabinet designates a body with the authority to coordinate the implementation of the GEAP.***	***3. Government of The Gambia (GOTG) has completed a GEAP investment program, reviewed it at a sectoral Donors' conference, and included initial projects in the FY 93/94 Public Investment Program (PIP)***			
	INTERIM STEPS TO MEETING THE CONDITIONS OF THE RESPECTIVE TRANCHE				
	GEAP is completed and approved by the National Environmental Management Council.	Investment program for GEAP is finalized by the GOTG.			

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PROGRAM THEME I	CONDITIONALITIES TARGET DISBURSEMENTS TARGET DATES				
	TRANCHE 1 $2,000,000 12/92	TRANCHE 2 $2,000,000 7/93	TRANCHE 3 $1,000,000 7/94	TRANCHE 4 $2,000,000 7/95	TRANCHE 5 $3,000,000 7/96
SUB-THEME B: Rationalization of funding and revenue-generation for natural resources management	***4. Ministry of Agriculture (MOA) and Ministry of Natural Resources and the Environment (MNRE) develop action plans for implementation of the Program Budgeting System (PBS) which will include assignment of required staff and, for MOA, evidence of a 1991/92 annual financial report.***	***7. The GOTG makes a committment to study: (i) present and projected forest and park revenue flows; (ii) options for the retention of a portion of revenues by the resource-generating sector (including line agencies, independent boards, and communities); (iii) personnel and operational expenditures needed by GOTG to implement the natural resources management component of the GEAP***	***5. Based on a multi-year analysis, develop the FY 94/95 recurrent budgets for specific MOA and MNRE programs.*** ***8. Forestry fees and royalties are revised to more accurately reflect true costs and schedule is gazetted.*** ***9. Written evidence that the GOTG has undertaken and reviewed the studies specified in Conditionality #7, developed an action plan, and begun implementation of the appropriate recommendations.***	***6. Publication of annual financial reports by MOA and MNRE which analyze FY 94/95 expenditures against originally budgeted amounts, make recommendations for ongoing budget process and include results of effort at establishing program evaluation***	
	INTERIM STEPS TO MEETING THE CONDITIONS OF THE RESPECTIVE TRANCHE				
	MOA and MNRE in collaboration with a PBS Advisor develop a timetable for implementation of PBS.	Scopes of work are prepared for the studies in conditionality 7.	Study of forest product transport & sale prices, and proposals on fee and royalty revisions. Studies conducted to adjust fees charged for licenses and permits, and revise royalties on harvesting/transport of forest products	MOA and MNRE developed criteria for pilot program evaluation	

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PROGRAM THEME I	CONDITIONALITIES TARGET DISBURSEMENTS TARGET DATES				
	TRANCHE 1 $2,000,000 12/92	TRANCHE 2 $2,000,000 7/93	TRANCHE 3 $1,000,000 7/94	TRANCHE 4 $2,000,000 7/95	TRANCHE 5 $3,000,000 7/96
SUB-THEME C: Liberalization of natural resources markets	***10. The Livestock Marketing Act of 1975 is repealed by Parliament.***				
	INTERIM STEPS TO MEETING THE CONDITIONS OF THE RESPECTIVE TRANCHE				
	Cabinet recommends to Parliament that the Livestock Marketing Act be repealed.				

PROGRAM THEME II *Creation of an enabling framework that will allow local communities to assume management control of, and benefit financially from, local land-based resources*	CONDITIONALITIES TARGET DISBURSEMENTS TARGET DATES				
	TRANCHE 1 $2,000,000 12/92	TRANCHE 2 $2,000,000 7/93	TRANCHE 3 $1,000,000 7/94	TRANCHE 4 $2,000,000 7/95	TRANCHE 5 $3,000,000 7/96
SUB-THEME: Devolution of authority over forest and grazing resources					***11. Legislation concerning forestry, wildlife, livestock, lands and other natural resources and relevant Regulations are revised in order to enable local communities to assume management responsibility for these resources, subject to government monitoring.***
	INTERIM STEPS TO MEETING THE CONDITIONS OF THE RESPECTIVE TRANCHE				
					Review options and requirements for institutional and operational changes needed to introduce long-term leases of GOTG grazing land and to promote local control of forest and grazing resources, including safeguards for sustainable use by local communities. Review operation of Livestock Development Fund and verify auditing and management standards. Review the options for transferring a portion of the Fund to local livestock owners' associations. Review experiences with community forestry with the view to revising Forest Act to facilitate adoption of concept. Mass media campaign on intent of revised Forest Act and other NR legislation that enable local control of natural resources.

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PROGRAM ASSISTANCE APPROVAL DOCUMENT

-ANNEXES-

AGRICULTURE AND NATURAL RESOURCES (ANR) PROGRAM

(Number 635-0235)

and

AGRICULTURE AND NATURAL RESOURCES (ANR) SUPPORT PROJECT

(Number 635-0236)

United States Agency for International Development
Banjul, The Gambia

August 14, 1992

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ANNEXES

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W. USAID PERSONNEL, DESIGN TEAM PARTICIPANTS, AND PERSONS CONTACTED
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ANNEX A: LOGICAL FRAMEWORK

ANNEX A: LOGICAL FRAMEWORK
AGRICULTURE & NATURAL RESOURCES PROGRAM
(635-0235) and (635-0236)
Life of Project: From FY 92 to FY 97
Total U.S. Funding: $22.5 million

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal: Increased rural income	1. 2 percent annual increase in rural incomes.	Integrated household survey of income and expenditures to be administered by Central Statistics Department with support of the World Bank's Social Dimensions of Adjustment (SDA) Project. Survey to be administered biennially beginning in mid-1992, with first results expected in March 1993.	No abrupt policy shifts counteract the current economic policy of liberalization. Verification dependent upon successful implementation of World Bank SDA Project.
Program Purpose Sustainable increases in the value of production on land under improved resource management practices.	Conditions indicating purpose has been achieved - End of Program Status (EOPS)[1] 1a. Six new Community Resource Management Agreements (CRMA) concerning forest and rangeland in place, involving 1,000 hectares of natural forest management and 1,200 hectares of grazing management. The increase in value of sustainable production per hectare on these lands exceeds 25 percent after two years of operation, primarily from discontinuation of burning. 1b. CRMA's concerning improved agricultural practices bring 1,750 hectares under new practices, with an increase in sustainable production of 25 percent. 1c. CRMA's concerning reclaimed agricultural lands expand lowland crop production by 150 hectares. 1d. Greater than half of the increases in value of production in villages with CRMA's accrue to women.	1a. NGO baseline and EOP data collection in target villages with CRMA's. Value of production for lands under CRMA's is estimated by NGO's, with ANR assistance, prior to the commencement of CRMA. On-going NGO monitoring of target areas will include data collection on adoption rates, bio-physical conditions, and changes in value of production. 1b. (same as 1a.) 1c. (same as 1a.) 1d. (same as 1a)	1. Rainfall patterns will be normal (based on a 6 year average) during project implementation.

[1] EOPS are derived principally from the PAAD Economic and Financial Analysis, Annex F. Long-term improvements in productivity and value of production are apparent in the 20 year time horizon of the economic analysis. For the purpose of monitoring ANR Program success, the EOPSs have been written with rounded numbers, although the economic analysis uses exact figures.

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<u>Program Sub-Purpose A</u> Establishment of a policy and regulatory environment that is conducive to the adoption of improved natural resource management practices.	1. The process for communities and the GOTG to undertake CRMA's is simplified and standardized.	1. NGO Program Coordinator reports on status of protocol development for establishment of CRMA's.	
	2. Fee, license, and royalty schedule for forestry products revised and enforced.	2. Modification of schedules and changes in amounts collected in fees, licenses, and royalties reported to USAID.	
	3. Protocols developed and systems in place to facilitate close working relationship between line ministries, NGOs and local communities. Five NGO's outside the ANR Program draw upon the GOTG technical expertise from DLS, SWMU, and Forestry Department.	3. Reports of NGO Program Coordinator and GOTG reports.	
	4. Implementation of Program Budgeting System in the MNRE and MOA results in more efficient delivery of services to natural resource managers.	4. PBS Advisor provides special reports on program evaluations in MOA and MNRE and conformity of budgeting changes to GEAP agenda.	
	5. Flows of GOTG-collected revenues from forest and livestock fees/taxes encourages more sustainable production.	5. Special studies, Contractor reports.	
	6. Improved planning and coordination for natural resources at the national level.	6. Mid-term and final evaluation, GOTG reports.	

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program Sub-Purpose B Increased adoption of improved natural resource management practices.	Conditions indicating purpose has been achieved: 1a. 1,000 hectares of natural forest under CRMA's (increasing to 3,800 hectares by year 10) 1b. 1,200 hectares of rangeland under CRMA's (increasing to 5,000 hectares by year 10) 1c. 50 hectares in fruit and nut orchards under CRMA's (increasing to 200 hectares by year 10) 1d. 175 hectares of cropland under CRMA's protected by windbreaks (increasing to 653 hectares by year 10) 1e. 1,000 hectares of cropland under CRMA's stabilized (increasing to 3,800 hectares by year 10) 1f. 150 hectares of cropland under CRMA's reclaimed (increasing to 500 hectares by year 10) 1g. Number of hectares damaged by fires in forest/range areas under CRMA's declines by 75 percent.	1. NGO baseline and EOP data collection in target villages with CRMA's.	

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Output A: Improved Natural Resources Planning			
1. Gambia Environmental Action Plan (GEAP) approved and being implemented.	1a. GEAP endorsed by Cabinet Decree. 1b. GEAP steering committee meeting regularly to evaluate progress of project interventions. 1c. Projects related to the Environmental Action Plan are incorporated into the Public Investment Program. 1d. PIP has a system for incorporating environmental assessments into proposed projects. 1e. Formal approval of the mandate for the MNRE Planning and Environment Units.	1. USAID Program Manager assessment, based on policy dialogue with GOTG and reports from MNRE on status of outputs.	1. Continued UNSO support for MNRE environment unit will contribute significantly to achievement of objectives vis-a-vis the GEAP and strengthening of that unit.
2. MNRE Planning and Environment Units made fully operational and natural resource oriented departments strengthened.	2a. Staffing needs identified for selected MNRE and MOA departments (e.g. MNRE Forestry and Wildlife Departments, Environment and Planning Units, MOA Livestock Department) to enable them to implement the natural resources program outlined in the GEAP. 2b. Increased numbers of staff in MNRE and MOA departments dealing with natural resources issues (actual numbers to be based on conclusions in needs assessment).	2a. Study of staffing requirements completed. 2b. Assessment of MOA, MNRE, Policy Analyst, and USAID program manager.	

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
3. Strengthened capacity of MNRE to carry out environmental policy studies and needs assessments required under the Environmental Action Plan.	3a. Research studies completed under auspices of ANR Program covering selected topics, such as: o Analysis of legislative reforms needed o Rationalization of issues for forestry policy reform o Land tenure and environmental management o Devolution of authority	3a. Analyses completed; copies submitted to USAID. Independent evaluation of quality and appropriateness of the analyses undertaken.	
4. Information collection and availability for natural resource planning improves.	4a. Appropriate environmental information and monitoring system in place in MNRE. 4b. Aerial survey completed, including the following outputs: o Updated land resource inventory, including forest inventory; 4c. Special data collection studies, as prioritized by the MNRE, are undertaken.	4. Submission to USAID of copies of analyses completed using improved information system. Independent evaluation of quality of the output.	o Assumes GTZ co-financing of aerial photography and forest resource inventory.
<u>Output B</u>: Empowerment and Pricing Policy Reforms 1. Authority over local forest and pasture resources devolved to local communities.	1a. 10 local communities implementing Community Resource Use Agreements following approved protocols. 1b. Forestry law modified to facilitate the allocation of usufruct rights (rights to output of forests) to local communities for ungazetted forest land once these communities have developed and are implementing an approved forest management plan. 1c. Regulations modified to permit local communities to lease rangeland from the government on a long-term basis.	1a. Submission of reports by Forestry Department, participating NGOs, and other agencies involved with CRMAs. 1b. Modification of appropriate statutes reported to USAID. Independent assessment of appropriateness of law as enacted. 1c. Submission of reports by Livestock Department, participating NGOs, and other agencies involved with CRMAs.	o Collaboration between GTZ and ANR Program assumed. Continued involvement of GTZ in community forestry would greatly facilitate achievement of these outputs.

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
2. Pricing structure for forest products modified in order to discourage their indiscriminate depletion.	2. Royalties and fees for cutting and hauling wood adjusted and gazetted. The nature and scale of the revisions will be based on analyses conducted during project implementation.		o That the price of fuelwood to urban consumers can increase to a level that is adequate to provide incentives for resource renewal without causing unbearable hardship on the urban poor.
3. Principal of local grazing fees introduced.	3. 8 communities have range management programs involving the use of grazing fees for community range management and livestock production programs	3. NGO reporting records for villages with CRMA's.	
4. GOTG studies present and projected forest and park revenue flows, develops options for the retention of a portion of revenues by the resource-generating sector and prepares an action plan for implementation of appropriate options.	4a. Scopes of work are approved for the studies and appropriate recommendations implemented. 4b. Studies completed and reviewed, action plan developed, and implementation of appropriate recommendations has begun.	4. GOTG and Controller reports.	
Output C: Elimination of the monopoly of the LMB on the importation and export of livestock.	Repeal of the 1975 Livestock Marketing Act.		

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Output D: GOTG budget reforms			
1. Budget programming improvements (PBS/PEP) implemented at MOA and MNRE.	1a. Data required by PBS/PEP system routinely collected and analyzed for MOA and MNRE. Reports prepared for MOA and MNRE management on results of analysis. 1b. Funding for MOA and MNRE investment and recurrent budgets guided by PBS/PEP analysis.	1. Finalized budgets submitted to USAID.	1. Continued World Bank support for the implementation of the Public Expenditure Program at the level of the Ministry of Finance will facilitate achievement of outputs.
2. GOTG budgetary allocations for natural resources management activities in MNRE and MOA adequate to implement GEAP.	2a. Analysis of MNRE and MOA funding and staffing needs to implement natural resources program completed. 2b. MNRE and MOA funding levels adjusted based on needs assessment. 2c. Ministry of Finance releases budget tranches to MOA and MNRE in a timely manner.	2. Reports from MOA and MNRE on budgetary allocations. PBS Advisor input.	
Output E: Natural Resources Interventions.			
1. Improved natural resource management practices identified, adapted and disseminated.	1a. Natural resource packages for the following technologies identified and adapted (extension tech sheets prepared): contour planting; contour dikes; water diversion and anti-salinity barriers; windbreaks, live fences, and other agroforestry techniques; fruit trees and woodlot establishment; composting and residue management, and deferred grazing. 1b. Active extension efforts underway through NGOs to disseminate the above technologies. 1c. Research and analysis refines the protocol for establishing CRMA's.	1. Surveys and reports by NGOs and Forestry and Livestock Departments on status of field activities, adoption levels, and impact on productivity. Independent evaluation of results of field-level activities.	1. Implementation of World Bank ASSP Project will complement ANR Program by supporting MOA recurrent budget and permit ANR Program to focus on selected MOA departments.
2. Active environmental education efforts underway.	2a. Environmental education refined in school curriculum. 2b. Quality and diversity of environmental programs presented to village groups increases. 2c. Conflicting environmental education messages are resolved.	2 Independent assessment of environmental education program.	

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Inputs/Resources:			
A. Non-Project Assistance	approx. $10,000,000		
B. Support Project Assistance			
1. Technical Assistance	approx. $ 4,458,000		
Long-Term			
a. PSC Program Manager	1-a. 4.0 py		
b. NRM Senior Policy Advisor	1-b. 4.0 py		
c. Grants Administrator	1-c. 4.0 py		
d. Environmental Educ Spec	1-d 2.0 py		
e. PBS Advisor	1-d. 2.5 py		
e. Resource Inventory Spec.	1-e. 1.0 py		
2. Short-term TA	ST: 62.0 pm approx. $ 1,424,000		
3. Training	approx. $ 1,804,000		
a. Degree training in U.S.			
b. Short -term U.S.			
c. 3rd country ST training			
d. 3rd country academic			
e. In-country training			
f. Regional Networking			
4. Policy Studies	approx. $ 400,000		
5. Commodities	approx. $ 972,000		
6. NGO grants	approx. $ 1,800,000		
7. Peace Corps OYB Transfer	approx. $ 200,000		
8. Land tenure Center OYB Transfer	approx. $ 250,000		
9. Evaluations/Audits	approx. $ 200,000		
10.Contingencies/Inflation	approx. $ 992,000		

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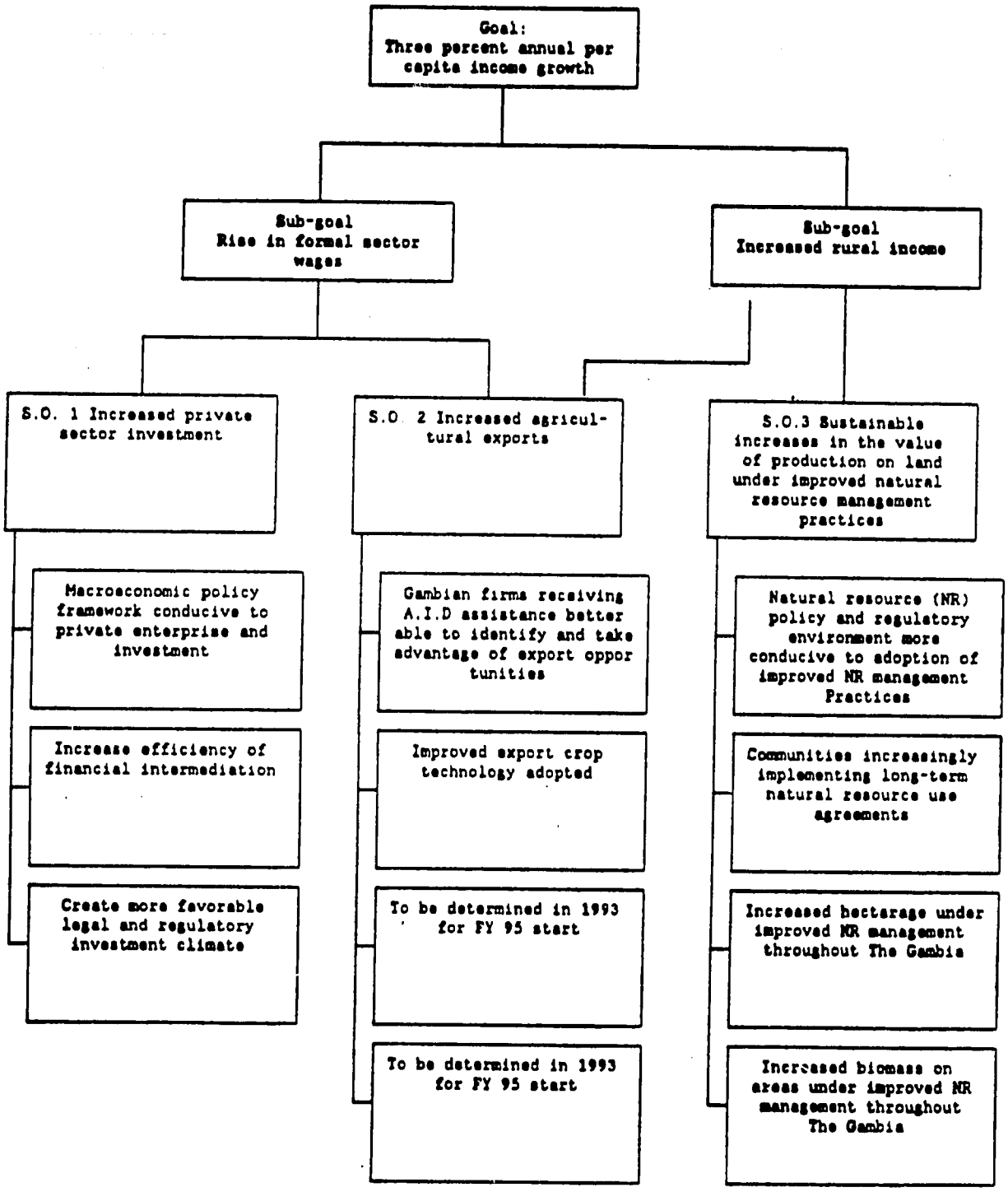
Gambia Program Logframe



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ANNEX B: PROGRAM CONDITIONALITY

ANNEX B: PROGRAM CONDITIONALITY

This Annex presents and justifies the proposed Program Conditionality and Interim Steps. Per AID/W guidance (STATE 181408 [ECPR Issues Paper]), the conditionalities identified for Tranches One and Two are considered to be firm. All other conditionalities should be considered as tentative, providing general guidelines and a plausible scenario on how the objectives of the policy component of the Program can best be met. NPA conditionalities are meant to be flexible, permitting adaptation to changing circumstances. The flexibility inherent in the outer-year conditionalities, coupled with active monitoring and assessment programs, should ensure that the Mission and the GOTG can develop the optimum mixture of policy reforms and other conditionalities so as to attain Program objectives.

In general, the conditionalities retained under the ANR Program have been refined to include only those that are clearly definable and implementable, that are supported by key GOTG entities (most notably the MNRE), that are likely to have a substantial impact, and that are within the manageable interest of the Mission.

As emphasized in the Program Description, the ANR Program has two basic thrusts (hereafter referred to as "Themes"):

I. The strengthening of the national policy and institutional framework governing natural resources; and

II. The creation of an enabling framework that will allow local communities to assume management control of, and benefit financially from, local land-based resources.

The Annex is, therefore, structured and the conditionalities grouped and described so as to reflect these two principal themes.

THEME I. NATIONAL POLICY AND INSTITUTIONAL FRAMEWORK

At the national level, the conditionalities are designed to promote and support the following broad policy reforms (hereafter and in the Policy Matrix referred to as "Sub-themes"):

A Completion, approval and implementation of the Gambia Environmental Action Plan (GEAP);

B Rationalization of funding and revenue-generation for natural resources management; and

C Liberalization of natural resources markets.

SUB-THEME A Completion, Approval and Implementation of the GEAP

ANR conditionalities (as complemented by the Support Project Assistance) promote the completion, formalization and implementation of the GEAP, and thus The Gambia's effort to reverse the degradation of natural resources. The key steps towards the achievement of this objective and their relevance to the ANR Program are summarized in Table 1 (see page 30 of the PAAD; the numbering of the conditionalities on the Matrix and in the text and tables of this Annex is identical).

Table 1. Completion, Approval and Implementation of the GEAP

Date	GOTG Action	Relevance to ANR
Late 1992	GEAP is completed and approved by the National Environmental Management Council.	Interim step; essential to fulfillment of Conditionality 1.
Dec. 1992	**Cabinet approves the GEAP**	**One of the four conditions for disbursement in Tranche 1**
Dec. 1992	**Cabinet designates a body with the authority to coordinate the implementation of the GEAP**	**One of the four consitions for disbursement in Tranche 1**
1992-93	Investment program for GEAP is finalized by the GOTG	interim step; essential for meeting Conditionality 3
July 1993	**GOTG has completed a GEAP investment program, reviewed it at a sectoral Donors' conference, and included initial projects in the FY 1993-94 PIP**	**One of the two conditions for disbursement in Tranche 2**

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Conditionality 1: **Cabinet approves the GEAP**

Rationale The ANR Program is designed to complement the GOTG efforts in the environmental sector. As the GEAP has been the main focus of GOTG efforts in the natural resource sector, it is a prerequisite for successful implementation of the ANR Program.

Conditionality 2: **The Cabinet designates a body with the authority to coordinate the implementation of the Gambia Environmental Action Plan (December 1992)**

Rationale MNRE has overall responsibility for environmental policy formulation, management and coordination. However, the broad nature of the programs proposed under the GEAP means that these various programs do not fall clearly within the functions and responsibilities of a single ministry, department, or agency. Various ministries will be involved in GEAP-related programs or projects, each of whom will have its own sectoral objectives and constraints. Faced with "environmental" projects that are inevitably intersectoral and interministerial, there exists a fundamental institutional problem of effectively coordinating implementation of the GEAP programs and projects. The most effective solution would be to establish a strong coordinating agency within the existing institutional structure, and to vest that entity with overall coordinating responsibility.

The GEAP proposes that the National Environmental Management Council (NEMC) be given a broader coordinating role and that the Environment Unit within the MNRE be designated as the Secretariat of that body. This would place the Environment Unit, which has coordinated the preparation of the GEAP, in a central role vis-a-vis its implementation. The operational aspects of this role will need to be elaborated. Thus, for example, "coordination" might include the arbitration or technical resolution of conflicts between sectoral interests, such as between forestry, wildlife and livestock. Definition of the coordinating mandate also requires a decision concerning the position within the government hierarchy of the particular agency so designated. In establishing this mandate, a clear delineation will need to be made between the role of the Environment Unit, and that of the MNRE Planning Unit, which is charged with national natural resources policy analysis and formulation.

The ANR Program includes significant components of the action program proposed by the GEAP. Thus, for USAID's Program to be effective it will be essential for one GOTG agency to be able to coordinate and interact adequately with donors, all government agencies and the NGO community.

Conditionality 3: **GOTG has completed a GEAP investment program, reviewed it at a sectoral Donors' conference, and included initial projects in the FY 1993-94 Public Investment Program (PIP) (July 1993)**

Rationale. Once the GEAP document has been accepted by the government as the foundation for the strategy for environmental planning and management, the critical work begins. The implementation of the GEAP and the design of a strategy to address the issues identified during the analytical phase of the work is the most complex part. As with all interministerial and intersectoral plans, there is a risk that the GEAP may not go beyond a general statement of intentions. There is also the risk that environmental planning may evolve along a path at variance with the country's normal development planning and budgeting system. Experience in other countries has shown that it is essential that the investment implications of environmental action plans are fully integrated into the country's planning and budgeting processes, and into the overall donor/government strategy programming.

At the same time, the investment program must follow logically from the analysis contained in the GEAP, and the project actions identified should correspond to the types of actions broadly identified in the GEAP as necessary to begin tackling the priority issues. The GEAP design process will generate many project ideas, not all of which follow the strategy lines laid down in the GEAP. Given the cross-sectoral nature of the work and the input from many public sector sources, this can be expected. The initial stages of preparing the investment program consist of prioritizing the activities which will be proposed to the donor community for funding, and retaining those which really fit the strategy of the GEAP and address priority issues.

As the GEAP evolves from a definition of the environment and natural resources of The Gambia to the outline of a strategy and eventually to an investment program, it is essential that a firm, direct, and active link be made to the Public Investment Program and to other investment planning exercises at the sectoral and ministerial levels. The incorporation of environmental investment plans into the PIP would help to improve the quality of project planning related to natural resources and the environment, by encouraging the review of overall capital and personnel requirements, and recurrent cost implications, of the proposals developed.

During the development of the investment program, there has been a focus on donor coordination and support of the priorities as identified by host government. The GEAP, as approved, will provide official guidance on those areas which the GOTG feels are

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priorities for action on the environmental front. At the same time, the existence of the GEAP framework, will make coordinated action by the donor community easier. This can facilitate pooling of intellectual and financial resources for greater effectiveness of action. It can also ensure that the host government will not have to contend with a multitude of different programs with different objectives proposed for the same sector and addressing the same issues.

A sectoral Donors' conference is a necessary step to begin formalizing the level of support that the GEAP will attract. The conference, at which the GEAP will be discussed and the proposed investment program initially reviewed, will usually result in indications of interest from different donors for different actions proposed in the initial investment proposal. Once it is fairly certain which donors will be supportive and what areas interest them, projects and programs can be developed in coordination with the host government and along the broad policy directions outlined in the GEAP.

SUB-THEME B Rationalization of Funding and Revenue-Generation for Natural Resources Management

This Sub-theme covers two important topics. One is the funding of government activities in the natural resources sectors, and the effective use of this funding. The other topic concerns improved revenue generation from natural resources for the combined purposes of (a) generating funds to maintain and develop those resources and (b) introducing more realistic pricing of those resources. Resource pricing that more accurately reflects the replacement and social costs of resource use is a form of resource management, in that it allows market forces to curb wasteful demand, reveal scarcities and stimulate the transformation of raw materials into higher-value-added products.

The GOTG must ensure that its activities in the natural resources sector are adequately funded, and that its investments in the sector are used effectively, particularly given the limited personnel and material resources available. This requires the use of realistic, program-oriented budgets, the tracking of expenditures, and the measurement of performance relative to expenditure levels. At the same time, careful planning and budgeting is meaningless if the ultimate allocation of funds to the ministries bears no relationship to the line ministries' budgets or funding requirements.

For an effort such as the ANR Program, sound budgeting by the implementing agencies and the sufficient allocation of resources by the Ministry of Finance and Economic Affairs (MFEA) is particularly crucial as the ANR Program will not provide funds

directly to support recurrent operational costs. However, if the GOTG fails to provide the operating funds needed for implementation, the activities envisioned will not take place, and the ANR Program may fail in part unless some contingency funding of operations is built into the Program.

To ensure adequate funding of the GOTG's resources investment program, the ANR Program will condition non-project assistance on: (1) the maintenance and development of a sound program budgeting system (PBS) within both the MNRE and MOA; and (2) an increase in the recurrent budget levels for specific MNRE and MOA programs related to the implementation of the ANR Program and the natural resources agenda outlined in the Gambia Environmental Action Plan. The amount of increase will be based on an independent analysis of funding needs to be carried out early in the project's life and will take into account recurrent cost support being provided by other donors (e.g. the World Bank ADP III Project and the UNSO support for the MNRE)..

Under improved revenue generation, the ANR Program includes conditionalities designed to (1) establish the principle and the operation of dedicated Development Funds for forest and park management and replenished from the respective resource fees; (2) introduce revised royalties and fees for forest products.

Subtheme B, Topic 1: Improved Budgeting Systems

The scheduling of the GOTG actions and their relevance to the ANR Program foreseen under this subtheme are summarized in Table 2.

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Table 2. Steps towards improved bugeting systems

Date	GOTG Action	Relevance to ANR
Late 1992	MOA and MNRE in collaboration with a PBS Advisor develop a timetable for implementation of PBS.	Interim step; essential for the fulfillment of Conditionality 4.
Dec. 1992	MOA and MNRE develop action plans for implementation of the PBS which include assignment of required staff and, for MOA, evidence of a 1991/92 annual financial report.	One of the four conditions for disbursement in Tranche 1.
July 1994	Based on a multi-year analysis, develop the FY 1994/95 recurrent budgets for specific MNRE and MOA programs.	One of the three conditions for disbursement in Tranche 3.
Early 1994	MOA and MNRE develop criteria for pilot program evaluation.	Interim step; essential for meeting conditionality 6.
July 1995	Publication of annual financial reports by MOA and MNRE which analyze FY 94/95 expenditures against originally budgeted amounts, make recommendations for ongoing budget process, and include results of effort at establishing program evaluation.	Conditionality 6. If met, disbursement in Tranche 4.

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Conditionality 4: **MOA and MNRE develop action plans for implementation of the PBS which will include assignment of required staff and, for MOA, evidence of a 1991/92 annual financial report. (December 1992)**

Rationale The Program Budget System (PBS) is a management tool that enables a ministry and its departments to more rationally plan, budget, and monitor program expenditures, and to ultimately evaluate the impact of those expenditures. Its intent is to prioritize program activities, and hence improve resource allocation. Support for the continuation of the PBS in the MOA, and its introduction into the MNRE is proposed under the ANR Support Project. This effort will be supplemented by non-project assistance. Conditionality under the first tranche would be based upon:

a. A reaffirmation by the MOA of its intention to continue development of the PBS system and a formal agreement by the MNRE to implement it. In this, both ministries will establish a timetable for implementing the PBS and define explicit outputs (e.g. the contents of annual financial reports).

b. Assignment, by both the MOA and MNRE, to their respective PBS programs of a senior level staff member whose primary responsibility will be to coordinate and further develop the PBS program. Preferably, these individuals will be at the Grade 9 level (Senior Assistant Secretary or Senior Accountant). For MOA, the position would be effective as of the 1992/93 budget. MNRE would agree to propose the position for the 1993/94 budget and would assign another staff member to handle the PBS program in the interim.

Both the establishment of a timetable and concrete targets, and the assignment of appropriate staff, are considered critical for the ultimate success of the PBS system.

Conditionality 5: **Based on a multi-year funding analysis, develop the FY 1994/95 recurrent budgets for specific MOA and MNRE programs. (July 1994)**

Rationale Given the importance of agriculture in the Gambian economy and the severity of the environmental problems facing the country, combined with the emphasis placed by the Program for Sustained Development on protecting the natural resource base, USAID/Banjul believes that the recurrent budget for key programs within the MOA and MNRE is inadequate. In designing the ANR Program, the limitations on effective action due to the lack of

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adequate manpower in key areas and the lack of operational resources within these two ministries were manifest.

It is proposed, therefore, that NPA funds be conditioned on an explicit adjustment of the recurrent budgets for selected programs within the MNRE and MOA to ensure that both the ANR Program and the natural resources agenda outlined in the Gambia Environmental Action Plan can be implemented as planned. The level of this adjustment would have to be negotiated with the GOTG and based on an analysis, using available information, of multi-year funding requirements of the two Ministries involved in natural resources. This analysis, which would be carried out in late 1993 by representatives of the MFEA, MOA, MNRE and outside consultants financed by the ANR Program, is essential to the fulfillment of Conditionality 5. It would entail:

(1) A review of the organizational structure of MOA and MNRE and the current effective staffing and operational funding levels for the various units (taking into account off-budget expenditures, as well as the recurrent and development budgets);

(2) An estimate of the multi-year requirements in terms of personnel and operational expenses for implementing the USAID-funded ANR Program, as well as the natural resources agenda outlined in the Gambia Environmental Action Plan (this analysis will take into account recurrent cost support being provided by other donors); and

(3) An examination of funding flows and constraints, including an estimate of the impact of embargoes and delays in issuing warrants on the implementation of programs in these two ministries and the potential for modifications to the allocation system that would ensure the timely availability of funds.

<u>Conditionality 6:</u> **Publication of annual financial reports by MOA and MNRE which analyze FY 94/95 expenditures against originally budgeted amounts, make recommendations for the ongoing budget process, and include results of effort at establishing program evaluation (July 1995)**

<u>Rationale</u> The benefits of the PBS System come in several ways. First, the increased rigor in program planning imposed by the PBS system is inherently beneficial in terms of resource allocation. The use of the PBS permits the individual program managers and senior ministry staff to construct more rational budgets which

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clearly allocate resources among programs. Monitoring expenditures enables the agency to identify discrepancies between the original budget and the ultimate expenditure of resources. This information can then be used to inform the planning process. However, a potentially significant impact would come from monitoring achievements toward established goals and determining the cost-effectiveness of activities undertaken. The MOA already envisions some steps in this direction, involving the establishment of a progress reporting system (performance against the original program timetable). Such management information would help senior staff to determine whether additional resources are needed to achieve stated objectives, or whether a given program should be terminated as unrealistic.

The success of both MOA and MNRE in implementing the PBS system is best measured by the preparation of annual financial reports which include a breakdown of the original budget, an analysis of the expenditures against that budget, and recommendations for changes in the upcoming budget. Since the MOA will have had more experience with the PBS, it should be at the point where it can begin experimenting with program evaluation, in an effort to evaluate the cost-effectiveness of its programs. The content of the annual financial reports, and the timetable for producing them, will be established as part of the conditionality for the release of the first Tranche.

Subtheme B, Topic 2: Improved revenue generation

The actions foreseen under this topic are summarized in Table 3.

Table 3. Steps Towards Improved Revenue Generation

Date	GOTG Action	Relevance to ANR
July 1993	The GOTG makes a committment to study: (i) present and projected forest and park revenue flows; (ii) options for the retention of a portion of revenues by the resource-generating sector (including line agencies, independent boards, and communities); (iii) personnel and operational expenditures needed by GOTG to implement the natural resources management component of the GEAP (July 1993)	One of the two conditions for disbursement in Tranche 2
1993-1994	Studies to (a) adjust fees charged for licenses and permits, and to revise royalties on harvesting/transport of forest products, (b) revise forest product transport and sale prices, fees and royalties	Interim steps; of relevance to the fulfillment of Conditionality 8
July 1994	Forestry fees and royalties are revised, and schedule is gazetted	One of the three conditions for disbursement in Tranche 3
July 1994	Written evidence that the GOTG has undertaken and reviewed the studies specified in Conditionality #7, developed an action plan, and begun implementation of the appropriate recommendations.	One of the three conditions fordisbursement in Tranche 3

Conditionality 7: **The GOTG makes a committment to study: (i) present and projected forest and park revenue flows; (ii) options for the retention of a portion of revenues by the resource-generating sector (including line agencies, independent boards, and communities); (iii) personnel and operational expenditures needed by GOTG to implement the natural resources management component of the GEAP (July 1993)**

Rationale The intent of this conditionality is to study present and projected forest and park revenue flows, and develop options for the retention of a portion of revenues by the resource-generating sector.

Conditionality 8: **Forestry fees and royalties are revised, and schedule is gazetted (July 1994)**

Rationale. This conditionality will be used to formalize and officially announce the revision of fees for licenses and permits and the royalties (stumpage fees, i.e., the "price" of wood on the stump) issued or collected by the Department of Forestry.

The revision of the fee and royalty schedule will be preceded by studies of production, harvesting, haulage and other costs, as well as of the potential inflationary impact on consumer prices of fee and royalty increases. In the case of some forest products, it is possible that no revision is justified. Royalties ideally should realistically reflect the true market and social value of forest products, including the replacement cost of wood and some measure of the environmental costs of deforestation. With a formal revision of fees and royalties (thereafter ideally updated annually), the government would send market signals concerning growing scarcities, the need to reduce wastage, and the desirability of diverting some products to more valuable end uses.

More realistic pricing of forest products may also provide market incentives to invest in wood production, whether by the private sector or by the Department of Forestry itself.

Conditionality 9: **Written evidence that the GOTG has undertaken and reviewed the studies specified in Conditionality #7, developed an action plan, and begun implementation of the appropriate recommendations.**

Rationale The intent of this conditionality is to develop an action plan for implementation of the appropriate recommendations contained in the studies specified in Conditionality 7.

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SUB-THEME C Liberalization of Natural Resources Markets

Under this Sub-theme, only one conditionality has been retained:

Conditionality 10: The Livestock Marketing Act of 1975 is repealed by Parliament (December 1992)

Rationale. Repeal of the Livestock Marketing Act will have little immediate, far-reaching impact on natural resources, but it is a relatively simple action that would remove a potential obstacle to the free operation of markets, in turn with potential positive implications for rural incomes (cf. Program Goal and Purpose). Repeal of the Act implies primarily the elimination of the cattle import/export monopoly held by the Livestock Marketing Board (LMB) and repeal of the Act is necessary for the privatization of Abuko abattoir.

The import/export monopoly is not currently exercised, and there are no prospects that the LMB will resume exporting, although the potential to export breeding stock remains high. The abattoir is functioning, albeit inefficiently (cf. Annex H). Its privatization following the repeal of the Act may require some time; hence, this particular action should not be considered as part of Conditionality 10, only the legislated intention to do so as part of the repeal process. The interim status of the abattoir after repeal of the 1975 Act may in any event require special legislation under the Companies Act so as to clarify management responsibilities pending privatization. A review of the regulatory and advisory role of the Department of Livestock Services with a view to increasing its efficiency (1992-93) and of the options for privatizing the abattoir (1993) are two Interim Steps under this Sub-theme. The implications of the repeal are described in some detail below.

(a) Eliminating the import/export monopoly

Elimination of this legal monopoly could be accomplished relatively quickly, possibly with a one-time expenditure to GOTG of resettling the present LMB administrative (i.e., non-abattoir) personnel. This monopoly is a potential barrier to entry into the export market for a firm with the capital and experience to export breeding stock. The benefit of eliminating the monopoly is to remove one more (or at least potential) obstacle to cattle exporting. However, eliminating the monopoly will not necessarily lead to increased cattle exports. Therefore, there will not necessarily be any immediate economic benefits or any indicators to measure. If, however, a competent firm did enter the export market, it would seem reasonable to expect a significant, measurable impact.

(b) Proceed to divest Abuko abattoir:

Repeal of the Marketing Act will eliminate the LMB and will thus create the necessary condition to remove the GOTG from its inappropriate involvement in cattle slaughtering. However, the Abuko abattoir will continue to function in the same manner. There will necessarily be a transition from operations under the LMB to operations as a wholly independent firm. This transition is the privatization process. Two things must occur during this process: private investors must assume controlling ownership of the abattoir and the DLS needs to determine what role it should play.

It is not feasible simply to cease slaughtering operations. The services are neither what they should be nor what they could be. The abattoir is nevertheless an essential component of the commercial beef production infrastructure. To remove it altogether would create a hardship for the industry. The GOTC will continue to operate it while making a concerted effort to identify a potential private operator.

Privatization will benefit both consumers and producers. Consumers will have better quality meat because the DLS will be better able to regulate a private firm than another government agency. Lacking a refrigerated or freezer trade, most of the meat supply for the capital region of Banjul is dependent on daily throughput of the abattoir. Increased efficiency and throughput will lead to an increase in the supply, perhaps alleviating he chronic undersupply in the marketplace. There should be immediate improvements, but the real economic gains would be longer term. They will come as producers are better able to supply cattle to the meat industry.

THEME II. PROMOTION OF RESPONSIBLE NATURAL RESOURCES USE AT THE LOCAL LEVEL (CREATION OF THE ENABLING FRAMEWORK)

The conditionality and the progress indicators under this Theme are designed to promote and monitor progress towards local control and management of natural resources, including more direct financial benefits to local communities. This evolution towards local management of natural resources is a strategic aim of both the ANR Program and the GEAP. It involves the actual devolution of authority over resources from the central government to local communities (Sub-theme II).

SUB-THEME: Devolution of authority over forest and grazing resources

Under this sub-theme, there is only one conditionality which concerns the revision of natural resources legislation (forestry,

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wildlife, livestock, lands, agriculture, etc.) so as to create the enabling legal framework for local control and management of natural resources.

<u>Conditionality 11:</u> **Legislation concerning forestry, wildlife, livestock, lands and other natural resources and relevant Regulations are revised in order to enable local communities to assume management responsibility for these resources, subject to government monitoring (July 1996)**

<u>Rationale.</u> The empowerment of local communities to participate in the protection, conservation and rehabilition of natural resources is a central thrust of the ANR Program and an important principle espoused by the GEAP. Local control of natural resources also implies more direct financial benefits for local communities, thereby creating a greater vested interest in the maintenance of these resources. Government by itself does not have the manpower, financial and material resources to protect and manage natural resources effectively. In addition, governments acting as managers of natural resources in the name of social welfare often end up repressing certain market forces that, properly marshalled, can serve as resource-management tools by revealing scarcities, preventing waste or stimulating investments in resource develop-ment.

Ultimately, of course, both government monitoring and local community responsibility are needed. On the one hand, the government must create the enabling policy and legislative framework for sustainable resource management, arbitrate among competing interests, enforce sanctions against abuses, and inform and educate the public about natural resources. On the other hand, private owners and managers of resources have a stake in the maintenance and development of those resources and thus can more efficiently provide local surveillance and protection of resources.

The ANR Program is being initiated at a time when interest in the devolution of authority over natural resources is high, and the principle is being adopted as GOTG policy as part of the approval of the GEAP. Moreover, local control over natural resources is already being put into practice by two major donor-assisted projects in forestry and range management, using in part hitherto obscure provisions of existing laws. The ANR Program is thus building on existing foundations; its aim is to facilitate the development and the diffusion of the concept of local resource management by means of both policy and other institutional interventions at the national level, and by supporting NGOs to act as catalysts between local communities and government services in the diffusion of the concept.

The transfer of authority over natural resources from central governments to local communities requires careful pilot efforts, evaluation of these efforts, and gradual adaptation of the policy and legislative framework on the basis of this evaluation. That is why Conditionality 10, which calls for a revision of natural resources legislation, is not scheduled until 1996. Much evaluation of risks, safeguards, blockages, financial aspects, and rights and obligations of both communities and government services must precede this legislative revision.

Early experience with local assumption of management control of resources under the Community Forest Management component of the Gambian-German Forestry Project (cf. Annex G) and the Dankunku Grazing Management Project (cf. Annex H) has shown encouraging results. However, it is too early to base legislative reforms on these pilot efforts. The Grazing Project (1986-92) is further along, and points to the need to formalize the concept of long-term leases of rangelands from the Districts to Livestock Owners' Association and to study and formalize the issue of grazing fees and of the cattle head tax (cf. Annex G). The sole experience with Community Forestry Management to date, at Brefet, is in its first year, and thus an insufficient basis for proposing legislative revisions. The discussion of what these revisions might be is confined below to community forestry.

The legal basis for the pilot Brefet community forestry project is a provision of the Forestry Act of 1977 that gives the Minister (of MNRE) discretionary power to exempt local communities (with forest management plans approved by the Dept. of Forestry) from paying license fees and royalties on forest products extracted from the community area under management. Thus communities regain, under an approved forest management plan, those usufruct rights which were generally denied under the Forestry Act of 1977.

This provision of the 1977 Act seems to be adequate for the purpose of initiating other community forestry pilot projects under GGFP and as supported under the ANR Support Program Assistance. However, once the concept of community forestry has been further refined and ready to be more widely diffused, it will be advantageous to revise the Forestry Act so as to support the concept explicitly, as well as to facilitate other aspects of community forestry.

For example, a revision of the Act might eventually include the following provisions: a definition of Community Forestry Management; the right of a community to exercise this option, subject to established criteria (constitution of a local forestry committee, preparation and approval of forest management plans, residual supervisory powers of the Dept. of Forestry; etc.); financial aspects, such as set-aside of a certain percentage of the Community Forestry Fund to help support Dept. of Forestry

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technical assistance; the authority of the Director of Forestry, subject to appeal, to terminate a community forestry agreement in case of flagrant abuse. The issue of integrated forestry and grazing must also be addressed.

For these reasons, Conditionality 11 will be preceded by a number of actions summarized by the following Interim steps which must be taken within the five year life of the ANR Program:

- Review options and requirements for institutional and operational changes needed to introduce long-term leases of GOTG grazing lands and to promote local control of forest and grazing resources, including safeguards for sustainable use by local communities;

- Review operation of the Livestock Development Fund and verify auditing and management standards. Review the options for transferring a portion of the Fund to local livestock owners' associations;

- Review experiences with community forestry and grazing management with the view to revising the Forest Act and other natural resource legislation that enable local control of natural resources;

- Mass media campaign on intent of revised Forest Act and other natural resource legislation that enable local control of natural resources.

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NPA POLICY MATRIX
ATTACHMENT TO ANNEX B

USAID/BANJUL
AGRICULTURE AND NATURAL RESOURCES (ANR) PROGRAM

PROGRAM GOAL

Increased rural incomes

PROGRAM PURPOSE

Sustainable increases in the value of production on land under improved resource management practices

PROGRAM SUB-PURPOSE A

Establishment of a policy and regulatory framework that is conducive to the adoption of improved resource management practices

PROGRAM SUB-PURPOSE B

Increased adoption of field level natural resource planning and improved natural resource management practices

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PROGRAM THEME I *The strengthening of the national policy and institutional framework governing natural resources*	CONDITIONALITIES TARGET DISBURSEMENTS TARGET DATES				
	TRANCHE 1 $2,000,000 12/92	TRANCHE 2 $2,000,000 7/93	TRANCHE 3 $1,000,000 7/94	TRANCHE 4 $2,000,000 7/95	TRANCHE 5 $3,000,000 7/96
SUB-THEME A: Completion, approval and implementation of the Gambia Environmental Action Plan (GEAP)	***1. Cabinet approves the GEAP.*** ***2. Cabinet designates a body with the authority to coordinate the implementation of the GEAP.***	***3. Government of The Gambia (GOTG) has completed a GEAP investment program, reviewed it at a sectoral Donors' conference, and included initial projects in the FY 93/94 Public Investment Program (PIP)***			
	INTERIM STEPS TO MEETING THE CONDITIONS OF THE RESPECTIVE TRANCHE				
	GEAP is completed and approved by the National Environmental Management Council.	Investment program for GEAP is finalized by the GOTG.			

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PROGRAM THEME I	CONDITIONALITIES TARGET DISBURSEMENTS TARGET DATES				
	TRANCHE 1 $2,000,000 12/92	TRANCHE 2 $2,000,000 7/93	TRANCHE 3 $1,000,000 7/94	TRANCHE 4 $2,000,000 7/95	TRANCHE 5 $3,000,000 7/96
SUB-THEME B: Rationalization of funding and revenue-generation for natural resources management	***4. Ministry of Agriculture (MOA) and Ministry of Natural Resources and the Environment (MNRE) develop action plans for implementation of the Program Budgeting System (PBS) which will include assignment of required staff and, for MOA, evidence of a 1991/92 annual financial report.***	***7. The GOTG makes a committment to study: (i) present and projected forest and park revenue flows; (ii) options for the retention of a portion of revenues by the resource-generating sector (including line agencies, independent boards, and communities); (iii) personnel and operational expenditures needed by GOTG to implement the natural resources management component of the GEAP***	***5. Based on a multi-year analysis, develop the FY 94/95 recurrent budgets for specific MOA and MNRE programs.*** ***8. Forestry fees and royalties are revised to more accurately reflect true costs and schedule is gazetted.*** ***9. Written evidence that the GOTG has undertaken and reviewed the studies specified in Conditionality #7, developed an action plan, and begun implementation of the appropriate recommendations.***	***6. Publication of annual financial reports by MOA and MNRE which analyze FY 94/95 expenditures against originally budgeted amounts, make recommendations for ongoing budget process and include results of effort at establishing program evaluation***	
	INTERIM STEPS TO MEETING THE CONDITIONS OF THE RESPECTIVE TRANCHE				
	MOA and MNRE in collaboration with a PBS Advisor develop a timetable for implementation of PBS.	Scopes of work are prepared for the studies in conditionality 7.	Study of forest product transport & sale prices, and proposals on fee and royalty revisions. Studies conducted to adjust fees charged for licenses and permits, and revise royalties on harvesting/transport of forest products	MOA and MNRE developed criteria for pilot program evaluation	

PROGRAM THEME I	CONDITIONALITIES TARGET DISBURSEMENTS TARGET DATES				
	TRANCHE 1 $2,000,000 12/92	TRANCHE 2 $2,000,000 7/93	TRANCHE 3 $1,000,000 7/94	TRANCHE 4 $2,000,000 7/95	TRANCHE 5 $3,000,000 7/96
SUB-THEME C: Liberalization of natural resources markets	***10. The Livestock Marketing Act of 1975 is repealed by Parliament.***				
	INTERIM STEPS TO MEETING THE CONDITIONS OF THE RESPECTIVE TRANCHE				
	Cabinet recommends to Parliament that the Livestock Marketing Act be repealed.				

PROGRAM THEME II *Creation of an enabling framework that will allow local communities to assume management control of, and benefit financially from, local land-based resources*	CONDITIONALITIES TARGET DISBURSEMENTS TARGET DATES				
	TRANCHE 1 $2,000,000 12/92	TRANCHE 2 $2,000,000 7/93	TRANCHE 3 $1,000,000 7/94	TRANCHE 4 $2,000,000 7/95	TRANCHE 5 $3,000,000 7/96
SUB-THEME: Devolution of authority over forest and grazing resources					***11. Legislation concerning forestry, wildlife, livestock, lands and other natural resources and relevant Regulations are revised in order to enable local communities to assume management responsibility for these resources, subject to government monitoring.***
	INTERIM STEPS TO MEETING THE CONDITIONS OF THE RESPECTIVE TRANCHE				
					Review options and requirements for institutional and operational changes needed to introduce long-term leases of GOTG grazing land and to promote local control of forest and grazing resources, including safeguards for sustainable use by local communities. Review operation of Livestock Development Fund and verify auditing and management standards. Review the options for transferring a portion of the Fund to local livestock owners' associations. Review experiences with community forestry with the view to revising Forest Act to facilitate adoption of concept. Mass media campaign on intent of revised Forest Act and other NR legislation that enable local control of natural resources.

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ANNEX C: DETAILED COST ESTIMATES

ANNEX C: DETAILED COST ESTIMATES

1. MISSION-BASED PROGRAM MANAGEMENT

PROGRAM MANAGER - expatriate local hire, 1 dependent no children in school, overseas recruitment possible

Salary	63,000		4.0	252,000	
Post Diff	12,600		4.0 py	50,400	
FICA (@ 7.65%)	5,800		4.0 yrs	23,200	
Insurance	4,750		4.0 yrs	19,000	
R&R	3,000	2 people	3.0 py	18,000	
Per Diem	50	30 days	4.0 py	6,000	
Assignment/return	3,000	2 people	1 trip	6,000	
HHE Shipment				10,000	
Unaccom. Baggage				6,300	
POV Shipment				2,500	
Housing	1,200		48.0 mo	57,600	
Utilities	300		48.0 mo	14,400	
Guard Services	4,500		4.0 yrs	18,000	
FAAS Costs	17,000		4.0 yrs	68,000	
Contingency(Comparability inc.,communications,etc)				18,600	
SUBTOTAL					570,000

HUMAN RESOURCES DEVELOPMENT OFFICER - Partial salary of USAID/Banjul's HRDA Officer paid by the ANR PRogram to manage long-term and short-term overseas training.

Partial Salary	15,000	1 person	5.0 yrs	75,000	
SUBTOTAL					75,000

TOTAL MISSION-BASED PROGRAM MANAGEMENT	645,000

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2. INSTITUTIONAL CONTRACT MANAGED COMPONENTS

A) LONG-TERM TECHNICAL ASSISTANCE

POLICY ADVISOR/NATURAL RESOURCE PLANNER - assume 3 dependents, with schooling away from post for two of them

Salary	70,000		4.0 py	280,000	
Overhead	84,000		4.0 py	336,000	
Post Diff	14,000		4.0 py	56,000	
FICA (@ 7.65%)	6,425		4.0 py	25,700	
Insurance	4,750		4.0 py	19,000	
Education Allowance	24,000	2 kids	4.0 py	192,000	
Assignment/return	3,000	2 people	1 trip	6,000	
R&R/Home Lv/Educ Trav	3,000	4 people	4 trips	48,000	
HHE Shipment				10,000	
Unaccom. Baggage				6,300	
POV Shipment				2,500	
Per Diem	50	30 days	4.0 years	6,000	
Housing	1,200		48.0 mo	57,600	
Utilities	300		48.0 mo	14,400	
Guard Services	4,500		4.0 yrs	18,000	
FAAS Costs	10,000		4.0 yrs	40,000	
Contingency (Comp. Inc., Comm., etc.)				15,000	
SUBTOTAL					1,132,500

GRANTS ADMINISTRATOR - assumed 2 dependents, with schooling at post for one of them

Salary	50,000		4.0 py	200,000	
Overhead	60,000		4.0 py	240,000	
Post Diff	10,000		4.0 py	40,000	
FICA (@ 7.65%)	4,600		4.0 py	18,400	
Insurance	4,750		4.0 py	19,000	
Education Allowance	5,000	1 kids	4.0 py	20,000	
Assignment/return	3,000	3 people	1 trip	9,000	
R&R/Home Lv/Educ Trav	3,000	3 people	4 trips	36,000	
HHE Shipment				10,000	
Unaccom. Baggage				6,300	
POV Shipment				2,500	
Per Diem	50	30 days	4.0 years	6,000	
Housing	1,200		48.0 mo	57,600	
Utilities	300		48.0 mo	14,400	
Guard Services	4,500		4.0 yrs	18,000	
FAAS Costs	10,000		4.0 yrs	40,000	
Contingency (Comp. Inc., Comm., etc.)				15,000	
SUBTOTAL					752,200

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PROGRAM BUDGETING ADVISOR - assumes 1 dependent

Salary	50,000		2.5 py	125,000	
Overhead	60,000		2.5 py	150,000	
Post Diff	10,000		2.5 py	25,000	
FICA (@ 7.65%)	4,600		2.5 py	11,500	
Insurance	4,750		2.5 py	11,875	
Assignment/return	3,000	2 people	1 trip	6,000	
R&R/Home Leave	3,000	2 people	2 trips	12,000	
HHE Shipment				10,000	
Unaccom. Baggage				6,300	
POV Shipment				2,500	
Per Diem	50	30 days	2.5 years	3,750	
Housing	1,200		30.0 mo	36,000	
Utilities	300		30.0 mo	9,000	
Guard Services	4,500		2.5 yrs	11,250	
FAAS Costs	10,000		2.5 yrs	25,000	
Contingency (Comp. Inc., Comm., etc.)				10,000	
SUBTOTAL					455,175

ENVIRONMENTAL EDUCATION LONG TERM TA ELEMENT
assumes 3 dependents, 2 children at school at post

Salary	60,000		2.0 py	120,000	
Overhead	72,000		2.0 py	144,000	
Post Diff	12,000		2.0 py	24,000	
FICA (@ 7.65%)	5,500		2.0 py	11,000	
Insurance	4,750		2.0 py	9,500	
Education Allowance	5,000	2 kids	2.0 py	20,000	
Assignment/return	3,000	4 people	1 trip	12,000	
R&R/Home Leave	3,000	4 people	1 trip	12,000	
HHE Shipment				10,000	
Unaccom. Baggage				6,300	
POV Shipment				2,500	
Per Diem	50	30 days	2.0 years	3,000	
Housing	1,200		24.0 mo	28,800	
Utilities	300		24.0 mo	7,200	
Guard Services	4,500		2.0 yrs	9,000	
FAAS Costs	10,000		2.0 yrs	20,000	
Contingency (Comp. Inc., Comm., Inc.)				10,000	
SUBTOTAL					449,300

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RESOURCE INVENTORY SPECIALIST - 1 PERSON YEAR, assumes 3 depedents, 2 children at school at post

Salary	**56,000**		**1.0 py**	**56,000**	
Overhead	**67,200**		**1.0 py**	**67,200**	
Post Diff	**11,200**		**1.0 py**	**11,200**	
FICA (@ 7.65%)	**5,150**		**1.0 py**	**5,150**	
Insurance	**4,750**		**1.0 py**	**4,750**	
Educ Allowance	**5,000**	**2 kids**	**1**	**10,000**	
Assignment/return	**3,000**	**2 people**	**1 trip**	**6,000**	
R&R/Home Leave	**3,000**	**2 people**	**0 trips**	**0**	
HHE Shipment				**0**	
Unaccom. Baggage				**6,300**	
POV Shipment				**0**	
Per Diem	**50**	**30 days**	**1.0 years**	**1,500**	
Housing	**1,200**		**12.0 mo**	**14,400**	
Utilities	**300**		**12.0 mo**	**3,600**	
Guard Services	**4,500**		**1.0 yrs**	**4,500**	
FAAS Costs	**10,000**		**1.0 yrs**	**10,000**	
Contingency (Comp. Inc., Comm., etc.)				**10,000**	
SUBTOTAL					**210,600**
TOTAL LONG-TERM TECHNICAL ASSISTANCE					**2,999,775**

B) <u>SHORT-TERM TECHNICAL ASSISTANCE</u>

INFORMATION SYSTEMS - 2 Follow-up TDYs

Salary	230	24 days	2 TDYs	11,040	
Fringe (30% of salaries)				3,312	
Travel Costs	3,000		2 TDYs	6,000	
Per Diem	130	30 days	2 TDYs	7,800	
Overhead (100%)				14,352	
SUBTOTAL					42,504

EIS/PHOTO INTERPRETATION TDYS

Salary	230	24 days	13 TDYs	71,760	
Fringe (30% of salaries)				21,528	
Travel Costs	3,000		13 TDYs	39,000	
Per Diem	130	30 days	13 TDYs	50,700	
Overhead (100%)				93,288	
SUBTOTAL					276,276

ENVIRONMENTAL EDUCATION - SHORT-TERM TA

Salary	230	24 days	9 TDYs	49,680	
Fringe (30% of salaries)				14,904	
Travel Costs	3,000		9 TDYs	27,000	
Per Diem	130	30 days	9 TDYs	35,100	
Overhead (100%)				64,584	
SUBTOTAL					191,268

SHORT-TERM TA - MISCELLANEOUS NEEDS

Salary	210	24 days/TDY	36 TDYs	181,440	
Fringe (30% of salaries)				54,432	
Travel Costs	3,000		36 TDYs	108,000	
Per Diem	130	30 days/TDY	36 TDYs	140,400	
Overhead (100%)				235,872	
SUBTOTAL					720,144

TOTAL SHORT-TERM TECHNICAL ASSISTANCE **1,230,192**

C) HOME OFFICE BACKSTOPPING

Project Manager	60,000	0.25 %	4 years	60,000	
Secretary/Procurement	25,000	0.25 %	4 years	25,000	
Fringe	17,000	0.25 %	4 years	17,000	
Overhead				102,000	
Travel/Per Diem	6,000		8 trips	48,000	
SUBTOTAL					252,000

D) TRAINING AND NETWORKING

In-country Training				400,000	
PBS Training				40,000	
Regional Networking				200,000	
EIS/Phone Interpretation				60,000	
SUBTOTAL					700,000

E) OTHER DIRECT COSTS

DBA and SOS insurance				25,000	
HHE Storage				16,500	
Local Office Expenses	1,400		48 mo	67,200	
Admin Asst	800		48 mo	38,400	
Accountant	800		48 mo	38,400	
Communications	500		48 mo	24,000	
Miscellaneous Costs				50,000	
SUBTOTAL					259,500

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F) COMMODITIES		
Computer Equip. MNRE	40,000	
Office Equip, MNRE	40,000	
Computer Equip, PBS	120,000	
Computer/Office Equip/Contractor	30,000	
Vehicles (2)	48,000	
Household Furnishings	140,000	
Envir Ed Materials	72,000	
EIS Equipment	117,000	
Aerial Photography Equipment	50,000	
Aerial Photos	300,000	
SUBTOTAL		957,000
G) FIXED FEE FOR INSTITUTIONAL CONTRACT		302,208
H) NGO SUBGRANTS		1,800,000
I) POLICY STUDIES		400,000
J) INFLATION/CONTINGENCY		829,325
TOTAL INSTITUTIONAL CONTRACT		9,730,000

3. SHORT-TERM TECHNICAL ASSISTANCE OUTSIDE INSTITUTIONAL CONTRACT

Approximately 270 days of short-term technical assistance to be further defined as needed.

SUBTOTAL		194,000

4. MISSION-MANAGED TRAINING

US Academic		480,000
Third Country Academic		260,000
Short-term US		252,000
ST-US in EIS	3 pm	
ST-US in Photo Interp	1 pm	
EIS Diploma	2 courses	
ST-US - other	16 pm	
Short-term Third Country		112,000
EIS Senegal	9 pm	
Photo Interp Senegal	9 pm	
Misc. 3rd Country	30 pm	
SUBTOTAL TRAINING		1,104,000

5.	MISSION-MANAGED COMMODITIES	15,000
6.	OYB TRANSFER TO PEACE CORPS NATURAL RESOURCES/ENVIRONMENTAL EDUCATION PROGRAM	200,000
7.	OYB TRANSFER FOR LAND TENURE STUDY	250,000
8.	EVALUATION/AUDITS	200,000
9.	INFLATION/CONTINGENCY (outside of institutional contract)	162,000
GRAND TOTAL		12,500,000

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ANNEX D: INSTITUTIONAL AND POLITICAL ANALYSIS

ANNEX D: INSTITUTIONAL AND POLITICAL ANALYSIS

The Institutional and Political Analysis is very closely linked to the Social Soundness Analysis (Annex E). A central objective of the ANR Program is to help create the enabling framework to allow communities and individuals to assume more responsibility for management and protection of natural resources. For this to occur, both Government and communities of natural resources users need to be involved in the process. Both have to be willing and able participants in defining their respective roles -- in determining where one party's responsibility begins and the other's leaves off, and where shared responsibility is vital. Rural communities and those aspects of their social structure relevant to the ANR Program are the focus of the Social Soundness Analysis. The principal organizations and agencies (governmental and non-governmental) at the national-level which will participate in the process generally and, more particularly, in the ANR Program are:

- the Ministry of Natural Resources and Environment (MNRE);
- the Ministry of Agriculture (MOA); and
- various non-governmental organizations (NGOs).

Other GOTG institutions, such as the Ministry for Local Government and Lands and the Ministry of Finance and Economic Affairs have mandates of direct relevance to the ANR Program and will be involved intermittently or be directly affected by the Program. The structure and responsibilities of these institutions, their expected roles within the ANR Program, and issues concerning Program implementation are the subject of this annex.

A. GOTG MINISTRIES

1. The Ministry of Natural Resources and Environment (MNRE)

The Ministry of Natural Resources and Environment was recently reorganized and renamed after the Environment Unit moved from the Ministry of Health, Environment, Labor and Social Welfare to the (former) Ministry of Water Resources, Forestry and Fisheries. MNRE is now comprised of four technical Departments -- Forestry, Water Resources, Fisheries, and Wildlife Conservation -- and is supported in its policy analysis and planning functions by the Environment Unit and the Planning Unit.

The MNRE has overall statutory responsibility for national policy formulation, management and coordination for the environment. The Minister of MNRE chairs the National Environment Management Council (NEMC), established under the National Environment Management Act (NEMA) of 1987. MNRE's

Permanent Secretary is chairman for an Advisory Committee on the Management of the Natural Environment, a technical committee also provided for under the 1987 Act. In addition, he serves as secretary to the NEMC.

a. Planning Unit

The Planning Unit was officially created with its inclusion, for the first time, in the 1991/92 GOTG Estimates of Recurrent Expenditure. In close cooperation with MNRE's technical departments, the Planning Unit will address the broad spectrum of natural resource management issues, including appropriate natural resource utilization and sectoral integration to achieve multiple-use management and protection of land productivity. The Permanent Secretary views planning as a management function which should not be divorced from daily departmental activities. Specific activities of the Planning Unit will include the following [as proposed in the final draft (May 7, 1992) of the GEAP, p64]:

- [Undertake] medium-term perspective planning by systematically incorporating identified policies and priorities for the sector within the broad development objectives and priorities of the government;

- Propose appropriate policy instruments and measures in support of the implementation of plans and annual work programs;

- Institutionalize a program and project [design] process [which evaluates] ... alternative strategies for attaining the objectives by careful analysis and appraisal;

- [Incorporate] micro- and macro-economic research and statistical information into analysis and planning for the sector;

- Provide the necessary conceptual and professional support and guidance to technical departments in preparing their annual work programs and budgets to ensure effective utilization of budgetary resources...;

- Monitor and evaluate the progress of ongoing activities as a continuing effort in adjusting work programs and projects to the experience gained and changing conditions in time;

- Establish a practical working framework for collaborating with other production sectors of the economy;

- In close cooperation with the Environment Unit,

systematize and coordinate the current data collection task of the technical departments by designing and developing appropriate data collection instruments and sampling methods, and assist in the collation, analysis, and storage of collected data centrally in an easily accessible and retrievable data bank;

- Ascertain a balanced manpower requirement with availability as a prerequisite for endorsement of the scale and number of programs and projects for implementation by any single department; and

- Assist the technical departments in designing and developing administrative structures, management systems, and business procedures which recognize the need for effective community involvement in the tasks of reversing environmental degradation and preserving the delicate balance between man and nature.

Two posts, a Principal Planner and a Planner, were approved for the current fiscal year, but only the former has been filled. Furthermore, as a "unit", and not a department of the Ministry, its operating budget will come from the Ministry's administrative operating budget. The amount to be allocated to the Planning Unit has not yet been specified.

b. Environment Unit

The Environment Unit, which was recently incorporated into the reorganized MNRE, has a broad mandate which includes the following [as proposed in the final draft (May 7, 1992) of the GEAP, p.60]:

- Coordinate and monitor the implementation of the GEAP;

- Monitor activities which impact on the environment, particularly in the areas of natural resource management, industry, pollution, and waste disposal;

- Monitor and enforce compliance with provisions of legislation for which the Environment Unit has statutory regulatory authority;

- Monitor the enforcement of provisions of environmental legislation by the relevant agencies with statutory regulatory authority;

- Monitor trends and changes in key environmental parameters;

- Serve as a focal point for assembly, analysis, and distribution of environment-related data and information;

- **Coordinate environmental education and training;**
- **Assist with development and establishment of national environmental quality standards;**
- **Implement specific multi-sectoral programs for which the Unit has been given direct responsibility; and**
- **Coordinate environmental management planning, including preparation and review of environmental impact assessments, NGO activities, settlement policy, anti-poverty programs, and regional/international efforts to improve the environment.**

The Environment Unit is not explicitly mentioned in the 1987 National Environment Management Act. Nevertheless, it is the institution which, *de facto*, acts as GOTG's technical and administrative coordinator for environmental matters. The Unit's most recent task was to coordinate preparation of the Gambia Environmental Action Plan (GEAP). Despite being located within MNRE, other government institutions involved in the development of the GEAP have respected its neutral position as a coordinator and facilitator of this activity.

The Unit is currently staffed by one Principal and one Senior Environment Officer, two Environment Officers, and a small administrative support staff. The United Nations Sudano-Sahelian Office (UNSO) provides a Technical Advisor and operating support through a project entitled "Assistance in Planning, Monitoring and Coordination for Natural Resource Management". UNDP has funded consultants to work on the GEAP as well as The Gambia's country paper for the United Nations Conference on Environment and Development.

The distinction between the roles of the Planning Unit and the Environment Unit are still evolving. The GEAP differentiates their respective functions as follows:

> "Whereas the Environment Unit concentrates on environmental issues and in particular on coordination, policy development in environmental issues, education, and monitoring, the Planning Unit looks at the broader spectrum of natural resource management issues, including appropriate development and integration of sectors to achieve multiple-use management and protection of land productivity" [GEAP,p.54].

How this division of labor will be operationalized within MNRE has yet to be worked out, particularly the institutional placement of the "policy development" function. The GEAP is not clear as to how the Environment Unit and Planning Unit will coordinate policy development. Another important distinction is

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the respective scopes of the Units' operating mandate. While the Environment Unit spans all ministries concerned with environmental issues, the Planning Unit's mandate is confined to MNRE.

c. Department of Forestry

The Department of Forestry is charged with the stewardship and management of The Gambia's forests, including the establishment and collection of fees from licenses, permits, royalties, and the sale of confiscated illegal forest products. Established under colonial rule as the Forest Service, the Department has implemented a number of projects over the years, both with and without donor assistance. These include the establishment of multi-purpose forestry plantations near Banjul, village woodlot schemes, school reforestation efforts, and the promotion of an annual national tree planting day.

Of particular relevance to the ANR Program is the Community Forest Management program being developed through the Gambian-German Forestry Project (GGFP). Its objective is to foster responsible village natural resource management by divesting government control over some forest land to communities. Through a Community Forestry Management Agreement between a community and the Department of Forestry, the community regains, through proper management, those usufruct rights generally denied under the Forestry Act of 1977. Agreements currently being implemented on a pilot basis exempt communities from paying license and other royalty fees on forest products in areas under management, and allow them to retain revenues generated from the sale of forest products in a Community Development Account.

The Department currently has a full staff complement of 145. With only four professional foresters among them, the staffing level is inadequate to supervise and manage the nation's forests effectively while developing and initiating new programs in the rural forestry sector. The problem is further exacerbated by the fact that penalties are not high enough to deter the illegal felling and transport of forest products. Furthermore, field-level forestry staff (scouts, guards, rangers) have both enforcement and extension responsibilities, thereby reducing their effectiveness in working with NGOs and villagers. These two roles need to be more carefully defined and ways explored to separate these two functions.

A more complete description of the Department of Forestry and its activities is provided in Annex J.

d. Department of Wildlife Conservation

The President's Banjul Declaration (1977) gave high priority to protecting national habitat for wildlife. Despite this verbal

commitment, no operational strategy to do so was provided.

Currently, the Department has 26 employees, but only 2 are at a government salary grade of 6 or higher. This means that there are only minimal educational requirements for the remaining 24 personnel who are at grade 3 or lower. With this level of professional personnel, the Department has not had sufficient capability to supervise, control and implement the new Kiang West National Park plan nor to create other wildlife refuges. They would, however, benefit from training and other assistance by donors.

However, based on a very well-organized personnel scheme (which recognizes the need for female technical staff, as well as male), nine new positions for the Department were approved by GOTG in May 1992 for the 1992/93 fiscal year. This staff increase comes at a time when government hiring limits are strictly adhered to, and demonstrates increased commitment by GOTG to back DWC with the resources it needs to carry out its mandate. While increased staffing is clearly an important step, DWC also has severe recurrent budget constraints and has not benefitted from any Development Funds during the past two budgeting cycles.

The institutional structure of the Department of Wildlife Conservation is treated in more detail in Annex O.

2. The Ministry of Agriculture (MOA)

The Ministry of Agriculture has four departments of relevance to ANR Program implementation. They are: (1) the Department of Agricultural Services (DAS); (2) the Department of Agricultural Research (DAR); (3) the Department of Livestock Services (DLS); and the Department of Planning (DOP). The current MOA staffing level, as given in the 1991-1992 Estimates totals 452, an increase of 48 from 1990-1991.

a. The Department of Agricultural Services

The Department of Agricultural Services is divided into 5 units: (1) crop extension; (2) soil and water management; (3) pest management; (4) agricultural communications; and (4) food and nutrition. The Department has six Divisional Agricultural Centers and 30 District Extension Centers.

(1) Extension

Currently, 192 village extension workers are employed by MOA and posted throughout the country. Their presence, however, has produced mixed results due in part to their restricted mobility, low level of training, and limited resources. These chronic

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weaknesses persist despite support from the World Bank's Second Agricultural Development Project (ADP II). Extension, in general, has been criticized for delivering too many often conflicting messages to farmers. ADP II's objective has been to improve the impact of village extension workers by cross-training them to become polyvalent agents, and by developing a network of contact farmers through which extension messages are disseminated. The approach is modeled on the World Bank's Training and Visit (T&V) system of agricultural extension.

Presently, all recurrent costs for the extension system are paid by ADP II. A follow-on project, the Agricultural Services Support Project (ASSP, commonly referred to as "ADP III"), is, as of this writing (May 1992) at the Appraisal stage. It is expected to extend most of the activities funded under ADP II, although not necessarily at the same levels. No increase to the research, extension, and communications staff of MOA is foreseen. ADP III will again provide operating funds for "incremental activities" of MOA, which will probably mean the bulk of field activities.

The ADP III Preparation Report proposed merging the Department of Livestock Service's Extension Unit into DAS. Village extension workers would then be responsible for both crop and livestock information, leading to a more efficient extension system with perhaps fewer extension agents.

(2) <u>The Soil and Water Management Unit (SWMU)</u>

The Soil and Water Management Unit, established in 1978 with USAID funding, has as its mandate to:

1. Halt and reverse environmental deterioration due to prevailing cultivation practices;

2. Stabilize and/or increase production of food, forage, wood and cash crops and reduce susceptibility to drought and other weather variations; and

3. Develop GOTG institutional capacity to deliver educational, technical and material services in soil and water management to the rural population.

The Soil and Water Management Unit has achieved considerable success in reclaiming saline soils (780 ha) and in the conservation of upland soils (1631 ha) through the construction of anti-salinity barriers, water diversion and retention structures, and contour berms. Modest progress has been made in introducing biological methods of soil conservation, mainly grass waterways to halt gully erosion. In addition, the Unit began establishing nurseries to provide seedlings for future agroforestry interventions.

SWMU is divided into Agronomy, Engineering, and Soil Survey Sections and currently employs 40 persons: 13 professional staff, 5 surveyors, and 7 field assistants. In addition, SWMU employs 6 seasonal staff, mostly as tractor operators, and 9 support staff. Full staffing should be achieved in June 1992 when two more staff members complete their BS degree training in the U.S.

Although institutionally part of MOA's Department of Agricultural Services, SWMU is somewhat isolated functionally from the channel of authority within DAS. Agricultural extension agents have a direct reporting line through the District and Divisional Agricultural Centers, and finally to national headquarters. SWMU has no direct programming line to the extension agents. To implement a program in a given village, SWMU must first work with an extension agent, pass the appropriate paperwork to the Divisional Agricultural Coordinator, then wait until the extension agent receives program implementation approval from the Divisional Agricultural Coordinator. This circuitous administrative structure causes inordinate delays in SWMU programs. It had been suggested that the SWMU should become a full Department within MOA, thereby providing it with a separate line item in the budget. This option was not accepted by the MOA because, from the point of view of DAS, better cooperation at the field level can be accomplished if SWMU stays within the DAS. Though the principle is sound, more effective coordination was not evident when SWMU opened an office in Basse. Serious questions arose there about authority and responsibility for the program.

A management study of SWMU highlighted the need for more effective managerial systems for the Unit, particularly for organizing field operations and dealing with logistics such as equipment maintenance. Logistical responsibilities are currently spread among the technical staff, potentially reducing their technical effectiveness.

The GOTG contribution to SWMU has been primarily in the form of salaries. In addition, DAS has, in the past, provided a significant portion of its operating budget to SWMU since the Extension Services have been supported almost exclusively through ADP II. Nevertheless, the absolute dalasi amount contributed to SWMU for operating expenses is still very low. In 1991, for example, DAS's contribution to the SWMU's recurrent costs covered only D9,000 of its fuel costs. GTZ currently provides some operational funding to SWMU, but these are earmarked for use in the Western Division.

The ADP III Project, discussed above, is expected to place more emphasis than ADP II on soil and water conservation in the upper parts of watersheds. This activity will probably be the project's main natural resources component, since the resource remote-sensing surveys proposed in the Preparation Report are no

longer being considered. The Preparation Report had also included support for SWMU to establish a field office outside of Banjul to facilitate their swamp reclamation activities, although it is not yet clear whether these activities will be retained in the Appraisal Report. If the project is not accepted by the GOTG because it does not meet the new stringent requirements for Public Investments, there is the potential for reduced government support for both Extension and SWMU.

(3) Agricultural Communications Unit

The Agricultural Communications Unit, based at the Yundum Research Center, is divided into six sections: administration, training, film and video, radio, print, and graphics. The film and video section is among the most active and has staff trained as 16mm film camera operators, sound recordists, lighting technicians, and editors. Mobile film and video vans are used for village presentations. The radio section produces programs for Radio Gambia, but not on a scheduled basis. However, equipment in the radio and print sections are very old and broken down and the Unit does not have adequate resources to disseminate messages regularly on a countrywide basis. It is anticipated that Agricultural Communications Unit will be supported by the ADP III project to improve its capability in message preparation and delivery. The Unit may be a potential participant in the ANR Program's environmental education activities.

b. Department of Agricultural Research (DAR)

The Department of Agricultural Research (DAR) has a mandate to conduct crop research and develop seed technology -- a mandate which is largely commodity-focused. To the extent that successful natural resource management techniques depend upon the integration of crops, livestock, and trees and shrubs, the DAR's contribution to integrated land use strategies may be limited. Nevertheless, the DAR will continue to provide information on agricultural practices and new varieties. With research responsibilities divided by discipline among departments in both MOA and MNRE, evaluation of natural resource management technologies would depend upon the establishment of a collaborative research mechanism.

c. Department of Livestock Services

The Department of Livestock Services (DLS) is responsible for control of notifiable diseases, the inspection of animal products, and livestock extension. Through its activities with the UNDP-sponsored rangeland management program, the Department of Livestock Services has experience in local management of common grazing areas. This can contribute to the rangeland strategies used in village-level planning efforts that will be supported by the ANR Program.

A description of the activities and issues facing the Department of Livestock Services is provided in Annex K.

d. Department of Planning

The Department of Planning is divided into sections for policy analysis, projects, national agricultural data collection and monitoring and evaluation. It has a total of 90 employees, of which 50 are field enumerators and supervisors. The enumerators have been trained to do farm-level surveys with data collection at the "dabada" (household production unit) level. The data, mostly gender disaggregated, are used mostly for the National Agricultural Sample Survey. DOP also conducts surveys for various departments on a contract basis.

The statistical capabilities of DOP would be most useful for monitoring and evaluating the ANR Program. Because they collect data at the dabada level, much of the information needed for determining impacts of field activities on family incomes will be available almost exclusively through this department.

3. The Ministry for Local Government and Lands (MLGL)

The Ministry for Local Government and Lands has three areas of responsibility of direct relevance to the ANR Program:

- local government;
- land tenure and land use planning; and
- "community development".

Local government. MLGL provides the institutional superstructure for local government administration. The Gambia is divided into five administrative divisions: Western Division; North Bank Division; Lower River Division; MacCarthy Island Division; and Upper River Division (the Banjul urban area has separate administrative structures). Each division is headed by the Commissioner, a civil servant appointed by MLGL to oversee the general administration of government services and to carry out magisterial duties. All government agencies involved in rural development are represented in each division and are directly linked to their respective agency headquarters in Banjul. However, they also keep the Commissioner abreast of program activities.

Each division also has an Area Council (sometimes two in large divisions) to collect revenues and taxes and distribute food aid, among other things. Area Councils are ruled by elected councilors, but they are administered by staff from the Local Government Inspectorate of MLGL answerable to the Commissioner.

In this role, MLGL will be an important player in the redistribution of financial resources from central and district levels to local levels, and would have to be involved in any decisions that would affect the flow of revenues at the community level.

The divisions are further divided into districts, with each district administered by a chief elected by universal suffrage. He has primary administrative and judicial responsibility for his district, being particularly concerned with disputes relating to land rights, marriage, and other civil matters. The chief is assisted by a council of village heads from his district.

Land tenure and land use planning. The Department of Physical Planning and Housing is responsible for regulating and guiding the rational utilization of the country's land resources. It is guided by two statutes which provide the legal framework for land tenure in The Gambia: one governing Banjul/Kombo St. Mary, the other governing the remaining ninety percent of the country's land. The latter, the Land (Provinces) Act (Cap. 103) vests all land in these areas to the district authorities and permits the use of land by local people to be governed by the prevailing customary laws. Some customary laws, particularly the laws of inheritance, have been influenced by Islamic Law (See Annex E for a more complete discussion of land tenure issues).

Community development. The Department of Community Development (DCD) has over sixty field agents (community development assistants and home craft assistants) working with rural communities to stimulate self-help actions. While communication channels between these agents and those of the technical departments are not always clear (much seems to depend on personal interactions), they have the potential to contribute to successful planning and implementation of community-based natural resource management programs.

DCD was charged with assisting in the formation of development committees at the village level to serve as the "entry point" for all development programs. The resulting village development committees (VDCs) have had limited impact for a variety of reasons, among them: (i) VDCs are often imposed structures which did not evolve from groups already formed in the village; (ii) members are often the village's social elite and not representative of the community at large; and (iii) poor communication between agencies sometimes leads to the formation of separate committees for each program. Furthermore, it is often argued that VDCs need legal recognition (which they do not have) to be effective conduits for village development activities. While this may be so, legal recognition of VDCs would facilitate the development process only if the other hinderances to successful VDC operation are addressed first.

The Department of Community Development is also the GOTG's implementing agency for the UNDP-funded Gambia Village Development Trust Fund Project. Officially launched in June 1991, the project is designed to provide loans (and a very limited number of grants) to village groups and national NGOs to encourage participatory rural development through self-help community projects promoting income-generation for men, women, and youth. The project's central feature is an umbrella financing agency set up as an independent, legally incorporated trust. To date, project activities have focused on establishing the necessary institutional framework, including application guidelines and monitoring procedures. The DCD is responsible for the monitoring, loan appraisal, and research aspects of the Trust Fund, and has received UNDP project funds to strengthen its monitoring and evaluation capabilities (computers, vehicles, staff). The first project loan is expected to be issued in May 1992.

4. Ministry of Finance and Economic Affairs (MFEA)

The MFEA (until 1991 the Ministry of Finance and Trade) plays a major role in setting the direction of The Gambia's development. Its role has been enhanced in recent years as the country has gone through a rigorous structural adjustment process. This effort began in 1985 in an attempt to reverse a prolonged economic decline, and the MFEA was a major force in its design and implementation. The significant impact of this reform program, known as the Economic Recovery Program (ERP), is described in the main text of the PAAD. It involved a major reallocation of resources, including a serious effort at reducing the scale of the public sector in The Gambia. A large amount of the credit for the ERP's success lies with the MFEA and the leadership that it demonstrated. In 1991, The Gambia became one of the first African countries to "graduate" from an IMF structural adjustment program.

The GOTG reconfirmed its commitment to a liberal, market-based economic policy framework with the initiation of a four-year Program for Sustained Development (PSD) in 1989. Under the PSD, the MFEA continues to play a major role in the allocation of public sector resources. Each fall the MFEA issues a "call circular" which provides guidelines for ministries to follow in preparing their annual budget estimates. The MFEA is charged with ensuring that the aggregate of the budgetary submissions reflects fiscal constraints. This places the MFEA in the role of negotiating with the various ministries to reduce excessive requests and ensure that priorities are soundly set.

The MFEA will play a key role in the ANR Program in three respects:

- It will be the implementing agency in the disbursement of NPA debt relief funds;

- The MFEA, through its budgetary authority, will have a major impact in the allocation of recurrent budget funds to the ANR implementing ministries (MNRE and MOA). The proposal in the ANR Program to condition non-project assistance to changes in the recurrent budget levels of these ministries will thus require their participation and accord;

- A principle justification for the introduction of the Program Budgeting System is to enable the MOA and MNRE to better justify, to the MFEA, their (presumably increased) budget requests. Thus, the collaboration of the MFEA in the development of the PBS is important, together with their agreement in principle that more careful budgeting would be reflected in a favorable consideration during the budgetary process (vis-a-vis ministries which do not have sound program budgeting systems in place).

USAID's interaction with the MFEA will clearly be facilitated by the long-term advisors that USAID is funding under the Economic and Financial Policy Analysis Project. The advisors under this project, which are attached to the Minister's office, have played a key role in the articulation and monitoring of economic policy by the MFEA.

5. The Gambian Parliament

Since one conditionality (no. 10) asks for legislative revisions, a brief description of Parliament and the legislative process is useful. Parliament's function has been largely one of endorsing the President's programs, but more recently, as opposition political parties are gaining experience, more critical discussions occur. Parliament meets for only three months per year, implying that the legislative agenda has to be kept light, if bills are to have a chance of being submitted and passed during one session.

Bills require the President's signature ("assent") and gazetting in order to become laws. There are currently signed bills that are still not laws because they have not yet been gazetted. Part II of the 1970 Constitution describes the specifics of the legislative process. It is not explicit, however, on who may introduce a Bill in Parliament.

The Gambia's legislative process per se is not seen as a hinderance to ANR Program activities. However, as with any political body, informal negotiations outside the official legislative process will carry at least as much weight as formal proceedings. As noted in the Financial and Private Enterprise

Support PAAD, "...in this tiny society where the important people of all walks of life know each other personally, virtually all Government decisions are seen as political and personal" (FAPE PAAD, 1991, p. 129).

6. Women's Bureau

The Women's Bureau, within the President's office, advises and influences government policy in order to promote women's interests in legislation. Policy cannot be legislated unless it passes through the Women's Bureau, although it has no effective veto power. The Bureau is advised by a Women's Council consisting of 31 councilors selected by local authorities (District Chiefs/Alkalos). Some representatives (usually urban) have advanced university degrees, while most rural councilors are not functionally literate. Perhaps more importantly, the councilors are established political leaders (often kafo leaders) in their villages and are noted for their organizational skills and their ability to mobilize resources.

The Bureau's main strength is in promoting legal reforms (such as the Child Maintenance Act, the Muslim Marriage Bill, and Property Inheritance Laws) that benefit women. Health and education have also been major areas of concentration. The Bureau has tried to promote labor-saving devices to address the problem of women's labor burdens, but this has been difficult in the absence of trained specialists at the Bureau. Environmental and natural resource issues are concerns of the Bureau, but are currently not a priority.

B. NON-GOVERNMENTAL ORGANIZATIONS (NGOs)

The Gambia has a history of active participation in development by a broad range of NGOs. Given the size of the country, there is a strong complement of experienced international organizations, some of them registered as PVOs with USAID, capable of designing and implementing major grants or cooperative agreements. In recent years, a growing cadre of Gambian NGOs has begun to play a role in development.

The contributions of the NGOs to national development has been clearly recognized. NGOs bring special organizational characteristics to the developmental effort which complement governmental programs and activities and provide a diversified, innovative and largely pragmatic approach to development. The flexibility of NGOs allows them to experiment with new approaches to problems which can be adopted by other organizations and government once their success and effectiveness have been demonstrated. The multi-disciplinary character of most NGOs is of particular value in this respect, especially when working at the grassroots level. Both successes and failures of NGOs are

valuable and essential in identifying workable (and non-workable) responses to problems concerning the delivery of services necessary for development.

Experience with NGO-government collaboration in The Gambia is as diverse as the number of organizations concerned. Some NGOs complement government services in areas (both geographical and sectoral) not fully covered by the government. Their relative freedom from bureaucratic procedures and their access to resources make this complementarity particularly valuable. On the other hand, there are also areas of friction between some NGOs and government. For example, NGO's are sometimes accused of draining government's already depleted technical expertise by luring them away with salaries that are higher than what the government can afford. Furthermore, the opinion has been voiced that some NGOs develop and implement programs with little or no input from government, thus creating a situation where organizations are working at cross-purposes.

The present role of the major international and Gambian NGOs and their potential for assuming greater responsibility is essential to expanding development efforts in The Gambia. Under present austerity measures, the GOTG cannot expand services by significantly increasing employee numbers. Indeed, it will be hard pressed to maintain the present level of technical and administrative services.

The following sections provide background and program sketches of three of the major NGOs working in The Gambia that could participate in the ANR Program: Catholic Relief Services; Save the Children Federation USA; and Action Aid The Gambia. Other NGOs working in agriculture in The Gambia include Canadian Universities Service Overseas (CUSO), CARITAS, Freedom from Hunger Campaign, Methodist Mission Agricultural Program, and Good Seed Mission. In addition, it is possible that NGOs not presently working in The Gambia would have skills that AID may wish to incorporate into the project, particularly in the area of natural forest management. An example is the World Wildlife Fund, which is currently assisting the GOTG to develop a management plan for the Kiang West National Park.

Catholic Relief Services (CRS)

CRS has been operating in The Gambia since 1967. With funding from CRS/New York, USAID, the IDRC, the African Hunger Fund, and private donations, CRS activities in The Gambia have included maternal/child health, distribution of food aid, agricultural production, the introduction of mills and dehullers, and the promotion of gardens and wells.

In the agricultural sector, CRS has spearheaded the promotion of sesame production as a low-labor, drought-tolerant

cash crop. Despite problems encountered in milling and marketing, as well as extensive pest damage in 1988, it appears that sesame is now an established component of the farming systems of many communities. CRS has also participated in cowpea promotional efforts in collaboration with the MOA research and extension services, and in the multiplication and distribution of improved fruit tree seedlings and seeds for rainy season vegetables. CRS operates a research station and nursery at Nemakunku to produce these materials and has collaborated with the Winrock On-Farm Seed Storage project in the multiplication of improved planting materials.

In recent years, CRS has shifted its focus away from direct program implementation and has taken the lead among international NGOs in strengthening the capacity of Gambian NGOs to implement programs themselves. Through a USAID strengthening grant, CRS has provided assistance through the Mother and Child Health Program which began in 1988, to the Gambian Food and Nutrition Association (GAFNA), a now fully-independent NGO. CRS has also channelled EEC funding to the Diocesan Secretariat Institutional Support Project which provides well-targeted welfare programs through the Roman Catholic Mission of Gambia. Most recently, CRS worked with the Gambia Rural Development Association (GRUDA) to write a proposal for seed capital and a small program development budget. The proposal was funded by a private US-based donor and with it GRUDA has completed a preliminary training program on Participatory Rural Appraisal techniques.

Save the Children Federation USA (SCF)

SCF operates entirely in the North Bank Division and focusses program efforts on maternal and child health, literacy, and agriculture. In the agricultural sector, rice production and multiplication have been areas of special emphasis, using funds from SCF headquarters and USAID (under the GARD project). SCF's Rice and Millet Production Program (RAMP) is largely supported by USAID through an NGO set-aside grant funded by the GARD project.

Of particular relevance to the ANR Program is an innovative pilot program which will help shape future programs promoting Government-NGO collaboration in village-based natural resource management. SCF is field-testing an approach which integrates the local community's natural resource management concerns with their other development needs. Using Participatory Rural Appraisal (PRA) techniques, a multi-disciplinary field team worked with one village to help them define and prioritize their problems. Soil erosion emerged as a key concern and, with the assistance of SWMU, a plan to control erosion has now been initiated. While much work remains to be done to refine the process, the SCF effort is an important point of departure for the ANR Program.

SCF has also begun to pass its experience on to the local NGO community. Through a small sub-grant, SCF assisted GRUDA with technical training in PRA techniques and program funds to implement an Appraisal on their own. The first stage of the Appraisal is complete and GRUDA is now pursuing solutions to problems identified through the PRA.

Action Aid The Gambia (AATG)

Working primarily in the Lower River Division and the MacCarthy Island Division, Action Aid is involved in providing extension services and inputs for a variety of crops, as well as livestock, bee keeping, fisheries and agroforestry. AATG also provides assistance with land reclamation and tidal irrigation development; savings and credit services; community health; and the construction of wells, schools, and seed stores. In the education sector, Action Aid operates 33 primary schools and provides assistance to 38 government schools. Finally, it funds literacy and skills development training programs.

Action Aid has a very large field staff of over 400. Its funding comes from a variety of sources in the UK, including the Overseas Development Association (ODA) and its parent organization, Action Aid UK.

NGO Coordinating Bodies

Two organizations operating in The Gambia have mandates concerning NGO coordination: The Association of Non-Governmental Organizations (TANGO) and the Advisory Committee for Coordination of NGOs (ACCNO). TANGO's membership is comprised of NGOs representing their interests while ACCNO is an intergovernmental organization.

The Association of Non-Governmental Organizations (TANGO)
TANGO, although officially formed in 1983, began effective operation with the establishment of a Permanent Secretariat in January 1990. The Association's objectives are to: (i) coordinate NGO activities to prevent sectoral, geographic, and sequential overlaps of NGO programs; (ii) provide a forum to discuss The Gambia's unmet development needs and possible NGO contributions to meeting them; (iii) advise Government on NGO activities and problems, and the more effective integration of NGO efforts into national development; (iv) provide a framework in which NGOs can collaborate and reinforce each other's activities; and (v) assist ACCNO in fulfilling its aims and objectives. TANGO has 54 members, including 22 international and 30 national NGOs. TANGO's executive secretariat: processes membership applications; maintains a database on member NGOs; produces and distributes a quarterly newsletter, annual reports, and other information; establishes links with NGOs in other countries; and maintains TANGO accounts and the central office.

The secretariat operates with UNDP funding and is actively seeking other funding sources to enable it to be self-sustaining.

TANGO's Executive Committee has stated emphatically that the Association should not be involved in program implementation and should maintain its focus on NGO coordination. Towards this end, TANGO has organized two sectoral task forces to facilitate dialogue between NGOs: one on credit and savings and the second on adult literacy and non-formal education. A third task force on health will soon be formed. In addition, TANGO houses the newly-established Gambia Village Development Trust Fund, and will help the Fund's board to identify NGOs through which it can work.

Advisory Committee for Coordination of NGOs (ACCNO): ACCNO is an intergovernmental body with a mandate to ensure that NGO activities are consistent with GOTG objectives and priorities, and to review and endorse applications from NGOs wishing to operate in The Gambia. The Organization is housed in the Department of Community Development, which provides ACCNO's secretary, and has a membership comprised of Permanent Secretaries, other GOTG officials, and TANGO. In practice, however, ACCNO is not yet effective. The Committee has not been formally convened in at least two years, and a study conducted in April 1991 concluded that some members are not even aware that they belong to ACCNO.[1]

To operate in The Gambia, an NGO must secure a certificate of registration from the Ministry of Justice, a relatively straightforward process requiring only that the NGO be non-profit and that it have a written constitution. With this certificate, the NGO can register with ACCNO and be eligible for duty waivers.

C. INSTITUTIONAL ISSUES FOR THE ANR PROGRAM

This section highlights institutional issues which have shaped the PAAD design, including substantive issues needing further consideration during project implementation.

1. GOTG policy-making locus for natural resources management

Answers to three inter-related questions are required to determine where and how natural resources management policy is currently formulated:

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[1]"Project to Strengthen Collaboration Between Government, NGOs, and UNDP" (RAF-87/001), Consultant's Report: Improving the Coordination of NGOs in The Gambia. Alan T. Miller. April 9-30, 1991.

- **How does GOTG define natural resources management, and what subsectors does it encompass?**

- **Which Ministry has addressed policy issues in the past in these subsectors?**

- **Which Ministry currently has the mandate to address this policy area?**

The articulation of "natural resources management" as a self-contained area of national policy is a relatively new occurrence. Until recently, the focus has been on agricultural policy, with implementation charged to the Ministry of Agriculture (or its former Ministry of Agricultural and Natural Resources).

National agricultural policy goals were first spelled out in the first two Five-Year Development Plans (1976-86) and were to remain essentially the same for the ten Plan years. In the Plans, the goals were operationalized by means of "subsectoral and commodity targets [as] the basis for the public investment and program guidelines of the then Ministry of Agriculture and Natural Resources, its technical departments and divisions..." (Kinteh, 1990, p. 5). There is thus a strong hint that, initially, policies were largely imposed on MOA, presumably mainly by the Ministry of Finance.

The Economic Recovery Program (ERP, 1985-89) outlined a 15-point agricultural policy which continued to be largely influenced by the economic stabilization and liberalization program. With the announcement of the Programme for Sustained Development (PSD) in 1990, agricultural policy and sectoral strategies were once again contained in a national policy document with a heavy emphasis on economics. Since the PSD policy statement is not accompanied by detailed discussions of technical and other sectoral issues, it is difficult to judge from PSD documentation the current role and capacity of MOA in policy formulation. It is probably fair to say, however, that agricultural policy is largely about commodity pricing, credit, marketing, crop diversification and other economic issues. To that extent, it will always be strongly influenced by economic actors outside of MOA.

The PSD agricultural policy does, however, place more emphasis on natural resources than the ERP. Thus, policy objective 3 is to "minimize natural resource deterioration and degradation" (PSD Sectoral Strategies, Executive Summary, 1990). Strategies and measures listed to achieve the objective are: the implementation of a conservation plan; development of rangelands; soil conservation in integrated watersheds; swamp reclamation and water-retention dikes; and promotion of agroforestry and education to reduce bush fires. Also included in the PSD are

policy objectives/sectoral strategies concerning "the environment". One objective is "to arrest and reverse environmental deterioration and depletion of natural resources, and evolve a system of environmental management under which outputs of crops, fodder, and forest products increase progressively without damage to the productivity of the lands." The overlap of "environmental" and "agricultural" policy is clear.

The GEAP, a major policy document prepared by MNRE, explicitly includes a policy objective to "conserve and promote the rational use of natural resources for the benefit of present and future generations." It goes on to outline program objectives aimed at achieving the policy objective. The Cabinet is expected to adopt the GEAP imminently and to concur with its accompanying recommendation ("prayer") to make natural resources management a priority investment area in the Public Investment Program, and to appoint the MNRE as the implementing agency for the GEAP. Steering the GEAP from development to completion has been a major accomplishment in itself for MNRE. Once granted the mandate to coordinate implementation of the GEAP, its institutional capacity to address concrete critical issues remains to be tested.

From this brief discussion, the difficulty of sorting out responses to the three questions raised above is clear. Policy-making in the natural resources sector, to the extent that it has been "packaged" as such, was largely driven by macro-economic objectives until the completion of the ERP. The end of the ERP coincided with the reorganization of MOA and MNRE and a redistribution of responsibilities for natural resources. The GEAP appears to subsume "natural resources policy" under "environmental policy". Furthermore, under PSD, MOA is in charge of a considerable segment of "natural resources policy", as noted earlier. A reconciliation of the respective MOA and MNRE mandates in the GEAP and PSD is needed. Helping to sort out this maze will clearly be part of the ANR Program Policy Advisor's task. The institutional placement of the Program to ensure the Advisor's effectiveness in this role is discussed in the following section.

2. Institutional placement of the ANR Program.

The Ministry of Natural Resources and the Environment is designated as the lead institution for the ANR Program. Despite the fact that natural resources management spans two key ministries -- MNRE and MOA -- placement of the ANR Program within the MNRE is justified. The National Environment Management Council (NEMC), established under the National Environment Management Act of 1987, is chaired by the Minister of MNRE. The Act also provides for an Advisory Committee on the Management of the Natural Environment, which is a technical committee chaired

by the Permanent Secretary of MNRE (GEAP, p53). He also serves as secretary to the NEMC. Since the MNRE has overall statutory responsibility for national policy formulation, management and coordination for the environment (GEAP, p54), it is the logical setting for the ANR Program.

The Program's level of operation within the MNRE received careful consideration by the PAAD design team, particularly its possible placement within the MNRE Planning Unit. The latter could be problematic for several reasons. First, the Planning Unit's mandate is confined to MNRE, while the ANR Program activities cross into the Ministry of Agriculture (livestock, soil and water management). MOA has its own Department of Planning with a mandate confined to that ministry. While the Senior Policy Advisor provided under the ANR Program will work with both ministries to help define natural resources policy, more discussion is needed between the two ministries to establish a framework for cross-ministerial cooperation in policy development and planning for the natural resources sector.

Second, the respective responsibilities of the Planning Unit and the Environment Unit within MNRE itself are still evolving. ANR Program objectives and activities clearly span the functions of both Units. By placing the ANR Program in one unit, the risk of developing too narrow a focus could emerge. On the other hand, placing the ANR Program at the Permanent Secretary level facilitates program linkages between both Units, as well as the MNRE technical departments.

Third, the Planning Unit, for all practical purposes, consists of one newly-appointed Principal Planner who only officially took up his post in May 1992. While it is certainly envisaged that the ANR Program will play a major role in strengthening this new unit, placement of the Program at the Permanent Secretary level will better facilitate this process in the long run, by permitting the Program to work across all MNRE units and departments.

Fourth, MNRE already has a Chief Technical Advisor funded by UNSO. His revised terms of reference place him as an advisor to the Permanent Secretary and specify that he will work on a daily basis with the Principal Environment Officer, the Principal Planner, and the Departmental Directors. The most effective coordination of UNSO and ANR Program efforts have been assured in the ANR Program design by placing the ANR long-term consultants at the same level as UNSO's Advisor. Both now have mandates to work across all MNRE units and departments.

In short, given the scope of the ANR Program, which crosses departmental/unit boundaries within MNRE as well as crosses ministerial boundaries, the most rational placement of the ANR Program, and the Policy Advisor, is with the MNRE Permanent

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Secretary.

3. Financing GOTG operating costs

USAID wants to avoid direct financial support to GOTG recurrent budgets (personnel and operating costs). The ANR Program hopes to avoid this by specifying NPA conditionalities which will improve program budgeting within MNRE and MOA and ensure the more rational release of funds to these ministries by the Ministry of Finance and Economic Affairs. ANR Program activities which will necessitate adequate funding of these ministries include policy studies and the promotion of resource-conserving technologies in the rural areas.

The ANR Program envisions the implementation of policy studies through the MNRE Planning Unit. The operating budget to be granted to the Unit for the 1992/93 financial year has not yet been established. However, given that the 1991/92 Estimates included no such budget, any Planning Unit budget to be included in subsequent years will require difficult negotiations with MFEA. The ANR Program budget contains a separate line item for policy studies, but the mechanism for spending these funds without providing direct support for GOTG operating costs will have to be worked out during project implementation.

A similar situation can be expected where the ANR Program, through NGOs, solicits participation from MNRE and MOA technical departments in field program implementation. The Soil and Water Management Unit will be a case in point, and the Mission will need to define the line between support to ANR Program activities and direct financing of GOTG operating expenses.

4. Potential for PBS effectiveness

MOA and MNRE are ultimately interested in the PBS as a means to justify to the Ministry of Finance their need for a bigger budget. This implies that MFEA will, in fact, use PBS data to influence budget allocation decisions. If PBS data has no hope of being a determining factor in MFEA budgeting, then the political will of the technical Ministries to commit to the PBS could be half-hearted at best. The argument has been put forward that the PBS is inherently valuable to any ministry as an internal planning and budgeting tool. However, this is not a strong enough incentive to invest the time, energy, and resources into developing an entirely new financial management system, especially in an environment where Ministries have no guarantee of receiving timely disbursements of approved budgets, much less increases over and above that budget.

Before USAID incorporates PBS into the ANR Program, further discussions will be required with MFEA (particularly between the MNRE and MOA, with the MFEA). If it is determined that budget

allocation decisions will not be influenced by PBS data, then the Mission should seriously rethink its support to the PBS program and its reluctance to provide any operational support to the implementing ministries.

5. Coordination of NRM planning across ministries

The GOTG has been wrestling for some time with the problem of coordinating natural resource management planning. The MOA Department of Planning, formerly called the Program, Planning, and Monitoring Unit (PPMU), was originally created to support the former Ministry of Agriculture and Natural Resources. When the ministry was split into MOA and MNRE, the PPMU retained its mandate for both the agriculture and natural resources sectors. However, because the PPMU was staffed by MOA employees and MOA housed its offices, MNRE expressed concern that its needs were given less priority than those of MOA. MNRE requested, and was granted, approval by the Ministry of Finance to create its own Policy Analysis and Planning Unit. The 1991/92 Estimates established the Unit with provision for one Principal Planner and one Planner. Since the Principal Planner only took up his post in May 1992, it is as yet unclear just how the two agencies will work together. Both Permanent Secretaries agree, in principle, that the respective planning agencies will "work together". During ANR Program implementation, further discussions between MNRE and MOA are required to determine just how the Department of Planning and MNRE's Planning Unit will collaborate on natural resources planning in general and ANR Program activities specifically.

6. Compatibility of the ANR Program and "ADP III"

As of this writing, the World Bank Agricultural Services Support Project (commonly known as "ADP III") is still in the Appraisal stage. Nevertheless, some areas of interaction between the two projects can be identified. First, it appears certain that ADP III will continue to finance the operating costs of MOA's Department of Agricultural Services. As in the past, this would permit the Department to channel a greater proportion of its budget to the Soil and Water Management Unit than would be possible if the Department's recurrent budget were needed to support its extension service.

Second, ADP III will continue to promote a modified version of the World Bank's Training and Visit extension system (T&V). Given T&V's strategy to develop polyvalent extension agents, the theory fits well with the ANR Program strategy for participatory natural resource management. Both require an inter-disciplinary perspective and the potential is there to involve DAR extension agents in the negotiation and finalization of Community Resource

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Management Agreements (CRMAs). On the other hand, to the extent that the implementation of the T&V system reflected a top-down approach, it could find itself at cross purposes with the ANR Program which will encourage a highly participatory, bottom-up approach.

7. Village Development Committees (VDCs)

The GEAP includes a provision which would give VDCs "legal recognition as community organs through which the GEAP actions will be executed as far as technically feasible, *especially the community natural resource management program actions*" (emphasis added). Given the limited success of VDCs to date, this could be problematic for ANR Program implementation. There is no doubt that VDCs, if organized in a participatory manner, have the potential to serve as the "entry point" for all development programs within a village. However, to legislate this authority without also clearly defining the criteria for forming VDCs could lead to a conflict between the participatory process envisaged in the ANR Program and an imposed VDC.

8. NGO-Government Coordination

Adopting an ANR Program strategy to expand NGOs' role in village development needs assessment and in coordinating the delivery of services: (1) builds on a successful NGO tradition of community-based development; (2) is acceptable to the GOTG; and (3) is consistent with the Mission's overall policy of support for the private sector. In doing so, however, care must be taken to ensure proper coordination between government and NGOs. Government itself has yet to elaborate a strategy for pursuing its stated objective of participatory resource management, much less the role NGOs can play in the process. The ANR Program will break new ground in helping to clarify the respective roles of the Government and NGOs.

9. NGO technical capacity

The fact that NGOs operating in The Gambia have limited technical expertise in the area of natural resources management has been a major consideration in designing the ANR Program. First, the program includes a long-term Grants Administrator to help both NGOs and GOTG develop and implement NRM programs. The Administrator's efforts will be reinforced and supplemented by short-term technical assistance, as well as an extensive training program for participating personnel. Second, the program implementation strategy optimizes the comparative advantages of Government and NGOs in carrying out project activities. The strength of NGOs lies in their decentralized structure and in their capacity to use their strong links with villagers to develop and implement grass-roots programs. Government, on the other hand, has its strengths in developing policy guidelines,

conducting research, monitoring program impacts, and providing technical support.

10. Potential institutional "losers" in the ANR policy agenda

The following organizations may be, or may perceive themselves to be, "losers" as a result of the ANR policy agenda:

Livestock Marketing Board (LMB) employees who are not directly connected to the Abuko abattoir. When the Livestock Marketing Act of 1975 is repealed, it is expected that a number of LMB's administrative staff will not be transferred to the new entity created for the Abuko abattoir under the Companies Act. The 1990 PSD document numbers the total staff of the LMB as 131, of whom approximately 70 employees may be unemployed when the Board is abolished (Annex K). However, the GOTG has retrenched far greater numbers of civil servants as part of its Economic Recovery Program. While retrenching employees is always a difficult and painful process, particularly in an environment of job scarcity, GOTG has clearly demonstrated its political will to do so.

The Treasury Department (MFEA). If and when the various dedicated Development Funds (forestry, parks, livestock) are established, it could be expected that substantial amounts of revenue would no longer feed into Treasury's accounts. For this reason, the timing of relevant Conditionalities in the ANR Program is protracted to allow Treasury and the various line ministries to work out mutually satisfactory revenue-sharing guidelines. The ANR Program design includes a consumption study to help line ministries revise their structure of resource fees and royalties. As they implement the new plans and manage the resulting Development Funds directly, line ministries would be better placed to share the burden now on the Treasury to support the development and non-salary operating budgets.

Area Councils. If and when the principle is accepted that livestock owners' associations can collect and retain the cattle head tax, area councils will lose a significant source of revenue. The ANR Program does not promote, a priori, a system to remove control over cattle head tax revenues from the area councils. Rather, it includes provisions for a study to carefully assess advantages and disadvantages of doing so. All potential stakeholders would be involved in the study, including The Ministry of Local Government and Lands, livestock owners association representatives, area councilors, and other community leaders.

Ministry of Agriculture. MOA may feel bypassed by the heavy emphasis on natural resources policy and planning within MNRE, despite MOA's mandate over "resources", such as grazing lands and

soils. They may also perceive the ANR Program strategy to channel village-level program inputs through NGOs as a diversion around the agricultural extension service. Two points need emphasis here. First, where program objectives of the extension service and NGOs overlap, NGOs have a history of seeking out and working with agricultural village extension workers in implementing their field programs. Second, the T&V extension system and the ANR Program's focus on Community Resource Management Agreements (CRMA) are compatible in their approaches in that both incorporate an inter-disciplinary perspective. One difference is that the T&V system's strategy is to transmit information to the communities (often necessary where technological packages are concerned), whereas the negotiation of CRMAs is a participatory process with communities. Ways to bridge this gap will be explored during ANR Program implementation.

The Department of Community Development of the Ministry of Local Government and Lands may feel excluded or bypassed for several reasons. The DCD promotes the creation and operation of Village Development Committees (VDCs) as the village "entry point" for all development activities. Given the diversity of VDCs in their representativeness and, consequently, their effectiveness, the ANR Program design does not presuppose the use of VDCs as the exclusive channel for community activities. Furthermore, DCD may feel bypassed by a more active community-level role of NGOs and by the fact that CRMAs are negotiated and signed mainly by GOTG technical agencies (Forestry Department, Livestock Services, etc.). The DCD's extension agents, as facilitators of integrated rural development, have a role to play in working with NGOs to negotiate such agreements. The ANR Program in no way excludes DCD's participation in the process.

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ANNEX E: SOCIAL SOUNDNESS ANALYSIS

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A. OBJECTIVES OF THE ANALYSIS

A central objective of the ANR Program is to help create the enabling framework to allow communities and individuals to assume more responsibility for management and protection of natural resources. For this to occur, both Government and communities of natural resources users need to be involved in the process. Both have to be willing and able participants in defining their respective roles -- in determining where one party's responsibility begins and the other's leaves off, and where shared responsibility is vital. The Institutional and Political Analysis (Annex D) discusses the principal organizations and agencies (governmental and non-governmental) at the national-level which will participate in the process. Rural communities and those aspects of their social structure relevant to the ANR Program are the focus of the Social Soundness Analysis.

B. THE RURAL CONTEXT

Gambian society is primarily agrarian with 70 percent of the population residing in villages and 80 percent belonging to farming families. Subsistence and cash cropping have been unable to meet the needs of a growing population and rural-urban migration has depleted the rural labor force of young males. The Gambia is one of the poorest countries in Africa with a per capita income of $380. Maternal and child mortality rates are high.

a. Village Social and Administrative Structure

The Gambian rural population resides within a system of village settlements surrounded by agricultural fields. Despite a dramatic evolution of the Gambian farming system from subsistence food production to mixed food and cash crop systems, the structure and function of the village has remained largely intact. Although the influence of Western socio-economic pressures can be seen in rural communities today, the pervasive strength of local cultures has kept the traditional social and cultural fabric from unravelling. Along with changes in the farming system came increased migration and thus more ethnic diversity. Five major ethnic groups reside in The Gambia -- Mandinka, Fula, Jola, Serahule, and Wolof -- and there is considerable inter-ethnic contact. Each group has been in some way influenced by the others, but differences in ethnic

traditions such as food preferences, agricultural production practices, and cultural beliefs remain.

The traditional view that women are generally subsistence producers, while men produce the cash crops, does not hold in The Gambia. Both men and women have some responsibility for all the major crops, including groundnuts, rice, millet, maize, sorghum, and cotton. Vegetables are essentially a women's crop. Men's and women's roles in agriculture vary by region, primarily because of differences in environmental influences, degrees of access to urban areas and off-farm wages. Ethnic variations in gender roles also exist, although this is not as pervasive as the regional ecological influence. It is important to note that, while women are involved in cash crop production, control over these crops is an issue. There has been a tendency for men to take control of traditionally women's crops when their cash value increases. Of particular note is men's entrance into rice production, traditionally a women's crop used for family subsistence and trade among women. Men became involved when dry-season irrigation was introduced, and women were effectively relegated to participation as hired labor. Women still predominate in rainy-season swamp and tidal rice production. Men are also becoming involved in commercial gardening, again, sometimes at the expense of women's control over the crop.

Family structure. Gambian villages are sub-divided into wards (kabilos).[1] Formerly, a kabilo occupied one settlement area and was, in effect, an extended family or household residential unit based on patrilineal kinship. Over time, as the number of family members increased, brothers and sons created their own residences, or compounds within the kabilos. Rural out-migration has scattered families and the kabilo no longer determines village formation patterns, as it previously did. Nor is the kabilo's economic role as significant as it once was. Its current importance is primarily in defining kinship relations.

Family compounds are organized around consumption and production units: the sinkiro and dabada respectively. Both evolved as authority within the compound eroded. Sinkiros are recognized as the more important unit in economic terms. Dabadas are semi-autonomous "work groups" within the larger family structure through which compound labor is organized. In recent years, the dabada's importance has been declining as compounds are sub-dividing even further, and the formerly distinct roles of sinkiros and dabadas are becoming increasingly blurred. The high rate of rural out-migration is partly responsible for this trend.

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[1]Highlighted terms are from the Mandinka language. They are used here, not because they are universally used by The Gambia's other four ethnic groups, but because most of the literature on Gambian households uses these terms.

It is also suggested that kafos (see below) have co-opted some of the responsibilities formerly performed by dabadas.

Organizations. Village administration is traditionally carried out by the alkalo, who plays the dominant leadership role in village affairs, and the village elders. The alkalo is generally the oldest male member of the oldest patrilineage in the village, although this is changing somewhat in that some villages are choosing their alkalos through elections rather than heredity. The alkalo has an assistant (either his next younger brother or his eldest son) who would be expected to succeed him. In addition to his responsibility for village affairs, the alkalo is also a member of the district council, which is in turn headed by an elected chief (seyfo).

Inter-village disputes over land or other civil matters are aired at the district level through a judicial court council of district elders, often alkalos. The district tribunal is chaired by the seyfo. An alternative dispute settlement mechanism, the magistrate's court, chaired by an itinerant judge, hears mostly criminal cases. However, the plaintiff seems to be able to chose the forum he wishes to judge his case.

The village council of elders (keba kafo) includes the religious leader (Imam) and compound heads. It manages village affairs by attempting to achieve consensus and by avoiding open personal conflict. The council's power depends upon many variables, including the personality and strength of the Alkalo, security of his power base, and degree of social change in the village. Nevertheless, to a large extent, the strength of the village social fabric has allowed the council to evolve and remain intact as a viable institution. Women are essentially excluded as formal members of the village council. Their participation in village affairs is through a parallel organizational structure of kafos.

Kafos are recognized indigenous community associations whose formation and membership are based upon age, gender, ethnicity, and village status. In Mandinka, the verb "kafu" means to come together, to unite. Kafos have an important economic function because they are able to supply supplemental labor when a farmer requests it. This is a primary source of income for the kafo. Village kafos also carry out communal village improvement projects and, for this reason, are frequently targeted by NGOs to plan and implement rural development programs.

Women's kafos exist throughout the country. Although they have traditionally emphasized family or village social events, many kafos have evolved into strong communal development groups. In a sense, many kafos can now be considered as special "local NGOs" in their role and function. Women's kafos have been particularly successful as vehicles for the expansion of adult

literacy, sesame production and marketing, and gardening. They have also been tapped to introduce new agricultural production technologies and to channel credit.

A number of other social institutions, both traditional and non-traditional, also exist within the village community. Of particular relevance to the ANR Program are groups set up to deal with natural resource management issues. The formation of Livestock Owners Associations (LOA), for example, has been promoted by the Department of Livestock Services as a means to improved extension and veterinary service delivery.

Another such group is the Village Development Committee (VDC). A relatively new institutional structure, VDCs were initially established in the First Five-Year Development Plan (1975-1981) as a mechanism for greater participation and institution building at the village level. In theory, VDCs are responsible for planning, programming and implementing all village development projects and form the link between village, government, and donor agencies involved in development interventions. In practice, however, their strength and effectiveness varies considerably from village to village. One reason is that many VDCs are not truly representative of the community. Ideally, VDCs should eliminate many of the biases of age and sex inherent in the traditional authority structure. Although VDC membership is open to all citizens, members are usually selected by the alkalo. Very few VDC members are women. In order to ensure that women's needs are addressed, some NGOs have recommended mandatory membership for at least one women in each VDC. It has also been suggested that, in order to make the VDCs more representative of a community's heterogenous population, VDC members should be selected from the various kabilos within a village.

VDCs vary greatly in effectiveness from village to village. This is often attributable to the unique factions and alliances which existed in a village before the VDC was convened. VDCs were not formally or systematically instituted. In many cases, committee members were selected without consideration of their skills, experience or representativeness in terms of the community's diverse interests. On the positive side, members sometimes also belong to other community organizations, including traditional kafos. This helps sensitize them to the needs of local development efforts and facilitates their effective contribution to the development process. The net result of this diversity among VDCs is that they are accorded varying degrees of recognition by development agencies as the village "entry point" for development interventions

b. Tenure and Allocation of Natural Resources[2]

In the rural areas of The Gambia, customary rights of tenure are protected under the Land (Provinces) Act (C 103). All land in these areas is vested in the District, each of which is headed by the seyfo. The customary systems governing on-farm tenure and common use resources, particularly grazing resources and forests, are discussed below.

Farm land. Village boundaries for farmland are readily identifiable by the alkalo and village elders. When the original members of a patrilineage move into unoccupied territory, they receive sanction to clear the land from a pre-existing political entity. Once these founding lineages acquire access to a particular territory, they subsequently allocate unused lands to immigrant households. To this day, founding lineages continue to possess greater access to land and to positions of power. Permission must be obtained from the alkalo to clear and farm land within village boundaries. The district chief, usually a descendant of a dominant royal lineage, grants permission to clear unclaimed land outside village boundaries.

Land allocation at the compound level is divided between communal fields and personal fields. As long as the individual remains a member of the household, control over the plot's use and the right to the crop produced remains with the individual. Usufructuary rights to individual fields are an especially important way for women to obtain cash from farming. Women gain use rights to land primarily through marriage, although land may be inherited from their mothers.

Customary laws governing borrowed lands vary considerably between villages. Immigrant lineages acquire land through long-term loans from founding families. Theoretically, the landowner may reclaim uncultivated fields at any time, although the practice appears to be rare. In one case, a seyfo is reclaiming all lands left uncultivated for fifteen or more years in order to reallocate them to new arrivals in the district. Conflicts do arise, however, concerning land in areas where productive land is becoming scarce or concerning lands which have been improved (with orchards, irrigation canals, wells, etc.). The potential for such conflicts may be leading landholders to grant more short-term, rather than long-term, loans of land. Security of

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[2]This section, and subsequent sections on security of tenure and conflict resolution (in Section D, Social Issues for the ANR Program) draw heavily from the discussion and conclusions contained in: Bruce, J., et. al. 1990. "Tenure Constraints and Opportunities in Natural Resource Management in The Gambia". Land Tenure Center, University of Wisconsin-Madison.

tenure, then, becomes an important issue when considering the promotion of technologies on land holdings.

Fruit tree planting is viewed as a way to obtain or consolidate access to land, since individual ownership is recognized for all planted and transplanted trees. Fruit trees such as citrus, mango and baobab are usually claimed by individuals, and trees are inherited through the male lineage. Trees may not be planted on borrowed land, since it appears the practice of harvesting and selling fruit often confers ownership to the land on which the tree is situated.

Common-use resources. The tenure and management of two common-use resources, grazing resources and forests, are important targets of the ANR Program. Each is discussed in turn below.

Access to grazing for cattle is quite variable across The Gambia, as is the distribution of the cattle population. Most grazing lands in the dry-season are considered by rural communities to be open-access, with few, if any, restrictions attached to their use. The development of irrigated agriculture, population growth, drought, and increased numbers of cattle have "compressed" grazing resources, and herders and cattle owners throughout The Gambia complain of a shortage of grazing opportunities. Herders' access to the river is being choked off as the customary tracks (which were once commonly a mile wide) are being constricted by the expansion of cultivated lands. Inevitably, conflicts have resulted as moving herds damage crops, particularly dry-season rice and vegetables. Many cultivators of these crops are women.

Forests were also once considered a completely open-access resource, but competition for forest products is increasing. The State has attempted to control the rapid destruction of open canopy forests through regulation to prevent cutting and burning, but enforcement of the regulations has proved difficult.

Women rely heavily on the products of common lands. They are the primary managers of small ruminants and often tether their animals in the commons. As the primary gatherers of firewood and other tree products, women depend upon open access to forests. Women also have important roles in agro-forestry through the introduction of live fencing in vegetable gardens and in trees/orchards planted within or adjacent to the gardens.

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C. PROJECT STAKEHOLDERS

a. Beneficiaries

An estimate of the number of ANR Program beneficiaries can be made from data contained in the Economic and Financial Analysis. By project year five, it is assumed that 2,806 hectares will be under various forms of improved management. Based on current land use patterns, this is 1,263 hectares in improved rangeland or pasture land, 982 hectares in managed forest, and the remaining 1,908 hectares in crops (including tree crops). Assuming an average farm size of four hectares per household (dabada), the 1908 hectares in crops would translate to 477 households benefitting from improved management. Based on an average participation of 25 households per village, the ANR Program is expected to be working in 19 villages by the fifth year. The economic analysis presumes that the spread rate will continue to increase after the project itself ends. These figures assume that NGOs will continue to promote ANR practices after the termination of the ANR Program, and that villages without any direct NGO presence will observe and adopt, without direct assistance, some of the techniques being used in the NGO target villages).

Using data projections from the Economic Analysis and the same arithmetic relationships used above (68 percent of total land is cropland, four hectares/household, and 25 households/village), it is estimated that, by year ten, approximately 1500 households in 60 villages would benefit. By year 25, the number of benefiting households would reach over 19,000 in nearly 800 villages. These spread rates are considered realistic, and conform to the expected outputs contained in the logframe. It should be noted that they are based only on the use of ANR practices on crop land. The number of hectares under improved rangeland and forests will also be significant, although it is difficult to calculate the number of beneficiaries from improving these resources.

b. Potential "Winners"

Support of rural communities can be expected because they would anticipate one or a number of direct benefits in the long term. Among these benefits might be: (i) direct control over access, use, and disposal of common-use trees and forest products; (ii) revenues from disposal of forest products; (iii) improved productivity of grazing lands resulting in a healthier, more productive herd; (iv) increased and sustained agricultural production through the application of appropriate soil and water conservation techniques; and (v) improved infrastructure and social welfare through initiatives financed from forest product

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and rangeland royalties administered locally. Women, in particular, will benefit in the long-term. As forest lands regenerate, women, as the primary collectors of fuelwood, will be able to find wood closer to home.

Government technical departments in the natural resources sector also win in the long run. Their burden will be eased by sharing natural resources stewardship with resource users. Government could then give more attention to macro rather than micro-management of resources, focusing more attention on policy analysis, arbitrating among competing interests, enforcing sanctions against abuses, educating and informing the public, and research.

In a very real sense, the ultimate winners of a sustainable resource management program are future generations of Gambians. They have the most to gain and no voice in determining the outcome.

c. Potential "Losers" (Opponents)

Ironically, many of the long-term winners defined above may consider themselves to be losers in the near term -- namely, individuals and groups who currently benefit from the "mining" of resources. The very communities which Government, NGOs and the ANR Program have targeted as beneficiaries of increased control over common-use resources may perceive themselves as losers in the short term. Prctection of forest reserves is justified from an ecological perspective, but in the short term, communities are losing access to forest products and the potential for expanding cultivation.

Other groups may also perceive themselves as losers. Included are urban consumers of fuelwood, who could see the price of that commodity increase. It may include wood cutters and transporters, to the extent that they cannot pass on the increased stumpage fees to consumers. Livestock owners would bear the short-term burden of controls over access to grazing. Small farmers could be hurt in the short-term, by restrictions on their ability to enter and crop new areas. Land owners may be pressured to relinquish some land for common management. Again, while these are short-term losses, these same groups will benefit in the long term. The current system of resource destruction is simply not sustainable.

From the information currently available, there is no reason to believe that specific ethnic groups or income classes will suffer disproportionately, or unfairly from either the policy reform component, or the field-level activities of the ANR Program. Attention must be paid, however, to ensuring that rural

women and the landless are not excluded from the benefits of the project.

D. SOCIAL ISSUES FOR THE ANR PROGRAM

This section highlights social issues which have shaped the PAAD design, including substantive issues needing further consideration during project implementation.

1. Rural Perspectives on Natural Resources

Attitudes concerning resource degradation vary around the country. In some areas, resource degradation is not necessarily perceived to be a problem having a solution within the communities' control. For example, fuelwood, while increasingly scarce, is still available, either legally or illegally, from communal lands or nearby forest reserves. Some villagers do not perceive a need for planting fuelwood trees, especially if such an activity requires resources (capital or labor) which could be employed for food or cash crop production. The fact that over-exploitation and destruction of the forest (or pasture land area) will eventually lead to the total depletion of the resource may appear to local inhabitants to be totally beyond their control, or simply irrelevant given their planning horizon. In other areas, communities understand the critical problem of deforestation and are motivated to participate in forest management.

While burning has short-term benefits, in the long run it is devastating for range resources. Continuous and persistent bush fires destroy not only annual and perennial grasses, but also the very soil humus upon which regeneration of grasses depends. Extensive burning, particularly late in the season, greatly reduces the biomass needed to maintain soil fertility and reduce soil erosion. It also contributes to the destruction of the forest cover. Experiments have shown that control of burning allows a significant increase in range carrying capacity during the dry season. Moreover, since these fires cannot be controlled, they spread and destroy valuable surrounding forest area. People seem to be very aware of the impact that burning has upon land degradation. However, where responsibility for the forest is unclear, individuals and communities have not mobilized to control these fires.

Part of the solution to this problem is one of education, a solution pursued through the ANR environmental education component. Part is undoubtedly the local enforcement of legislation. Again, it is a question of ensuring that local communities have a vested interest in maintaining pasture and

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forest areas, as well as the resources and skills needed to do so. This is the focus of the ANR program.

2. Community Empowerment

The long-term welfare of the Gambian people depends upon the rational and sustainable use of resources -- the avoidance of overgrazing and deforestation, controls on burning, and protection of biodiversity in natural areas. However, without effective local control over natural resources, individuals and communities have no clear incentive to take responsibility for long-term management of these resources. Decentralizing authority and empowering local communities to properly manage their resources (through changes in legislation, provision of technical assistance, and the dissemination of information) is therefore vital and will be a major thrust of the ANR Program. The process will be complex, requiring continued analysis, field-testing, and evaluation to be implemented successfully.

Promoting the "devolution of authority" over resources to communities implies an obvious assumption: that communities are willing and able to accept the authority. A danger is that policies could be promoted at the macro level to empower groups that, for one reason or another, will not assume responsibility to manage the resource in question. The ANR Program design revolves around the premise that government, communities, and NGOs will be partners in formulating and implementing programs to manage the nation's natural resources effectively. In practice, this will mean developing mutually acceptable terms for the Community Resource Management Agreements (CRMAs) to be promoted through the ANR Program and ensuring that communities involved in the program are committed to improving their natural resource base. Open communication channels between policy-makers and communities to ensure feedback on field program implementation will be instrumental in establishing the government/community/NGO partnership. Again, this is a focus of the ANR Program.

A critical issue to consider in promoting common property agreements is the community's management capacity to enforce resource management controls. Traditional institutions remain strong in The Gambia and thus have the potential to design and enforce resource use agreements. Developing effective management capacities will not be easy, but it is essential.

3. Community Heterogeneity

Communities are not homogeneous. Each has its own diversity of special interest groups with sometimes compatible and sometimes conflicting objectives. Therefore, promoting participatory resource management is not simply a question of

empowering "the community as a whole". For example, experience with community forests shows that one cannot assume that all members of a village will perceive the value of forests equally. Women may view the resource differently than men, farmers differently than cattle owners, youths differently then elders, Fulani differently than Mandinkas, the wealthier differently than the poorer members of the community. If all members of the village do not regard themselves as equal shareholders in the common property, a common management plan will not work. Consideration of these village realities, particularly those dealing with gender issues, will be required in planning field activities supported by the ANR Program.

Moreover, village organizations vary widely in the extent to which they represent "the community". Kafos are often structured around one age group or special interest, a desirable feature when a development effort is targeted towards that group. Conversely, their effectiveness is limited when the intervention requires consensus across special interest groups. VDCs are organized ostensibly for this purpose, yet VDC members are often appointed by the alkalo, not elected. Women are not represented on VDCs, nor on village councils. While it may be tempting for government or NGOs to make assistance to community organizations contingent upon specified membership criteria, nominal membership does not ensure participatory membership. The latter cannot be imposed.

Given the heterogeneity of Gambian communities, it would be unwise to specify, up front, local institutions that will be the focus of field activities under the proposed ANR program. It is probable that the locus of activities will vary, depending upon the relative strengths and weaknesses of various community groups and the experience of NGOs in working with them. While working with VDCs and kafos appears to show the most promise for implementing resource conserving technologies, the role played by traditional leadership groups, i.e. the alkalo and the village council, will be significant. In any case, as the first step towards introducing a development program, priority should be placed on understanding the unique setting and political infrastructure of a community. The choice of a village organization through which such programs should be channelled should evolve from this process. NGOs will be better placed than USAID project designers to do this as program implementation unfolds - hence their pivotal role in the ANR Program.

4. Security of Tenure

It is commonly accepted that rural producers must possess secure rights of tenure to resources as a pre-condition to their investing in land improvements. Customary tenure appears to provide reasonable security of tenure on-farm, at least for

customary owners and for members of lineages which have borrowed land for very long periods. Land borrowers, however, are finding their tenure rights and, hence, incentives for investment, increasingly limited. Borrowing periods are becoming shorter, as landowners increasingly fear that borrowers will begin to make ownership claims on the lands. Such short-term loans have been a constraint to investment on borrowed land. Indicative of the problem, land lent to one women's kafo was revoked by the owner after costly improvements greatly enhanced the land's value. Similarly, the alkalo can (and has on occasion done so) assert control over land and wells dug for a kafo.

Tenure issues vary enormously from place to place within The Gambia. Before launching a reforestation scheme, for example, it is critically important to consider the tree and land tenure situation in the particular locale. Where attempting to introduce soil and water conservation techniques, the negotiation of new use-rights agreements may be required before the techniques will be accepted. It is vital, therefore, that the status of tenure security be carefully assessed as part of the community needs assessment process.

Although the existing land tenure system presents certain constraints, research in The Gambia and other African countries indicates that large-scale land reforms should be discouraged. Land reform efforts in sub-saharan Africa have generally been unsuccessful. Tenure reforms that provide for individual ownership or the establishment of long-term leases are costly and often degenerate into "land grabs" by the more affluent urban class. The Land Tenure Center study concluded that the Gambian system of customary laws, sanctioned through legal statutes, is flexible enough to evolve in response to changing socio-economic needs.

5. Conflict Resolution

The preliminary study of tenure issues in natural resource management conducted by the University of Wisconsin's Land Tenure Center examined the issue of conflict resolution. As an important first step in defining pressure points in the current system of resource tenure in The Gambia, the study identified six of the most common areas of disputes:

-- Disputes between farmers and herders over crop damage by animals;

-- Disputes between compounds and individuals over boundaries and rights over cultivated land, particularly long-standing fallow land;

- -- Disputes over land borrowing, especially long-term borrowing;
- -- Disputes over inheritance of land;
- -- Disputes between lineages and villages over access to scarce natural resources such as key dry season pastures; and
- -- Gender-based disputes over access to irrigated rice fields and authority over distribution of income from the sale of output from those fields.

In addition to helping define pressure points in the system of natural resource use, disputes help pinpoint where customs have become dysfunctional. The examples above are indicative of what conflicts may surface during ANR Program implementation. Where an intervention concerns borrowed land, a new requirement for witnesses may be needed. Witnesses could have averted the problem described earlier where land lent to the women's kafo was revoked after costly improvements were made to the land. To avert disputes between farmers and herders, a CRMA might be negotiated to include cattle tracks for clearly specified times of the year.

The Land Tenure Center study notes four areas of possible dysfunction in the customary dispute settlement processes. First, since the alkalo is the head of the founding lineage, his neutrality in decisions to provide security of tenure for late-arrived lineages in his community could be questioned. Second, the election of alkalos may be undermining the traditional authority of these once-hereditary offices. While mindful of the first point concerning the neutrality of alkalos, ways may still need to be explored to reinforce their authority in dispute settlement. Third, there may be an overlap between the jurisdiction of the district tribunals and the magistrate's courts, leaving open the possibility of conflicting decisions on customary rules. The study concludes that more information is needed to determine the implications of these issues. Nevertheless, the study's important conclusion of direct relevance to the ANR Program is that The Gambia has a diversity of dispute settlement processes which appear conducive to effective development of customary resource tenure. This is the system within which the ANR Program will work to define the terms for CRMAs.

As part of the ANR Program, a follow-up study of these important issues and their implications for natural resources management will be funded.

6. Pace of ANR Program Implementation

Given the complexity of introducing the concept of community resource management agreements, the difficulty of developing management capacity within the village, the complexity of customary laws governing tenure and conflict resolution, and the need to carefully assess a community's readiness for embarking on a CRMA, the ANR Program has been structured to allow its slow, gradual progression. This approach is supported by the experience of two on-going experiments with CRMAs. The UNDP Rangeland and Water Management Project is in its sixth year of operation and in that time has implemented just one resource use agreement. Similarly, the Gambian-German Forestry Project facilitated the signing of its first Community Forestry Management Agreement after over one year of intensive research and consensus-building. Both are acknowledged as successful pilot projects and their collective experience advises moving no faster than the communities themselves are ready to move. One way to ensure that an optimal pace is maintained is to rely on the field-level experience and sensitivity of those NGOs implementing the programs, and to integrate their experience into the policy-making process.

7. Distribution of Benefits

Questions concerning the distribution of benefits under common property arrangements are critical to implementing CRMAs. To implement a successful community forest management scheme, clarifying tenure rights over the land, trees and tree products is essential. In a stratified rural community, all members may not have equal rights to the surrounding natural resources. The village elite may attempt to secure preferential access to resources.

Outsiders, such as government and NGOs, can play a role in helping communities to set up a system to manage forest resources in a clear, secure and equitable fashion. Ultimately, however, decisions concerning the distribution of benefits among community members are the primary responsibility of the community itself. The danger that elite groups would abrogate the rights of a project's intended beneficiaries, especially if the value of the land or resource in question increased significantly as a result of the project's investment, is present. Regular and open dialogue should help to flag this concern early in the process.

It should be remembered that an equitable distribution of benefits does not necessarily mean that benefits should be shared equally among all villagers. Such an approach would do little to motivate villagers to participate in resource maintenance and improvement. A system of distributing benefits is required that

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equitably compensates individuals and groups for their investment.

8. Gender Issues Concerning Natural Resources Management

Gender issues have been discussed throughout this analysis as they relate to specific headings. To summarize, women have some responsibility with all major crops produced in The Gambia, although their level of involvement and responsibility differ by crop and by geographic region. However, when crops for which women have had a predominant role have shifted from subsistence to cash production, men have often taken control of these crops. Irrigated rice and commercial vegetable/fruit production are cases in point.

Women rely heavily on the products of common lands. They are the primary managers of small ruminants and often tether their animals in the commons. As the primary gatherers of firewood and other tree products, women depend upon open access to forests.

Customary laws governing tree tenure also have important implications for women. Trees may not be planted on borrowed land, since trees establish ownership of the land. Because women rarely "own" the land they are using -- especially women's groups cultivating a collective garden -- it is difficult for them to fully develop a garden containing both vegetables and fruit trees.

The traditional hierarchy in village administration and customary laws presents some constraints to fully integrating women as participants in and beneficiaries of ANR Program activities. These constraints are not insurmountable. As stated earlier, the customary laws governing conflict resolution are sufficiently flexible to permit the effective development of common resources. What will be required during project implementation is careful consideration, at every step of the way, of the implications of a particular intervention for women. In negotiating a CRMA, how will women's access to the forest be protected? In promoting agro-forestry, how can women's tenure over trees be secured? How can traditional village administrative structures be enhanced to ensure that women have an active voice during CRMA negotiations? Again, the traditional system is adaptable enough to allow solutions to these concerns. It is up to the project implementation team to make the system work for all parties concerned.

A USAID-funded study of women's roles in agriculture and natural resources (Norton-Staal, 1991) suggests a number of ways to alleviate constraints to women's participation in ANR Program interventions.

- Strengthen women's kafos as one means to deliver technical services and resources;

- Target women as participants in natural resource management activities, in view of their often hidden role in such activities;

- Educate women regarding the enhanced role they can play in the forestry and agro-forestry sectors; and

- Design programs to transfer technology and related information to women which take into consideration women's particular needs and access limitations.

8. NGO Program Implementation Criteria

The ANR Program will fund grants to NGOs to implement programs promoting participatory natural resource management. Criteria for evaluating and reviewing grant proposals should include an assessment of the social acceptability of these programs. It is recommended that proposal reviews be based, in part, on the inclusion of the following elements in proposals.

1. An assessment of how the proposed target group will actively participate in the project's design, including a strategy to ensure that women participate in, and benefit from, the activities to be promoted.

2. A clear statement of anticipated impacts, particularly on women.

3. A plan to assess readiness within the target community to embark upon a CRMA, including the community's management capacity to carry it out;

4. Estimates of in-kind contributions by the community, as a means of assessing the community's commitment to the program.

5. A strategy to strengthen the institutional capacity of village-level partners and existing community organizations. Proposals should clearly identify the community groups (such as kafos) within the area which would participate in the project, describing their structure(s) and current activities, and show how the project will work with them. Proposals should also demonstrate that groups through which the NGO will work are representative of the community.

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6. A strategy for assessing location-specific patterns of land allocation, decision making, and conflict resolution, in particular, constraints to women's security of land tenure.

7. Where proposals include provision of equipment or other investments, future ownership of these should be clearly identified, together with the steps to be taken to avoid ownership accruing to an individual or to a small elite group.

8. Demonstrated sustainability and a clear statement of how project activities could continue without significant outside funding within a reasonable time period.

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ANNEX F: ECONOMIC AND FINANCIAL ANALYSIS

ANNEX F: ECONOMIC AND FINANCIAL ANALYSES

A. Summary

This Annex covers both the Economic and the Financial Analysis of the Gambia Agriculture and Natural Resources (ANR) Program.

The purpose of an economic analysis is to determine whether or not a project is a worthwhile investment for a country (or region) as a whole, i.e. whether the outputs from a project are sufficiently valuable to society to warrant the expenditure of scarce resources. The economic analysis looks not only at the returns to investors, but also factors in the societal costs and benefits, which may be externalities for the investor.

The financial analysis, on the other hand, examines a project from the point of view of the individual investors and it has two purposes. One is to determine if the project is financially viable and has a positive monetary value to the participants (i.e. the stream of benefits is sufficiently larger than the stream of costs to provide financial incentive to the Gambian farmer to participate). The second purpose is to determine if the stream of projected costs can actually be paid for by the participants, as envisioned in the project implementation schedule (see USAID Handbook 3).

As will be discussed below, a cost-benefit analysis of the cash transfer component (non-project assistance or NPA) of the ANR Program is unnecessary. Thus the focus of this annex is a rigorous analysis of the support project assistance portion of the ANR program. The support project assistance analysis shows a positive net present value at a discount rate of 10 percent, and an internal rate of return of 21 percent for both the economic and financial analyses. These rates are sufficient to recommend project implementation.

There are four parts to this economic annex:

- Part 1 presents an overview of economic analysis concepts.
- Part 2 discusses the economic analysis of the cash transfer under the non-project assistance component of the ANR Program. As will be explained, a cost-benefit analysis is unnecessary for the cash transfer.
- Part 3 presents an analysis of the Project Assistance

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Component of the ANR Project. It is divided into the following sections:

- Evolution of the cost-benefit model used in the analysis
- Operation of the Model, including the following sections:
  - Overview: Partial Budgets for Crop Production
  - Partial Budgets for Agroforestry Practices
  - Partial Budgets for Soil and Moisture Conservation Practices
  - Partial Budgets for Natural Forest and Rangeland Management
  - Application of Biological Production Functions and the Soil Degradation Rate
  - Extension and the Spread Rate
  - Calculation of Environmental Salvage Value
- Results of the Financial Analysis
- Results of the Economic Analysis
- Sensitivity Analyses

- Part 4 discusses the appropriateness of using standard cost-benefit analysis for evaluating natural resource-type investments which involve significant inter-generational benefit flows. It will be argued that the economic returns calculated for the proposed ANR Program, while sufficient in and of themselves to justify the project, actually understate the potential benefit of the ANR Project to The Gambia.

B. Part 1: Overview of Economic Analysis Concepts

As defined in AID Handbook 3 and the AID Manual for Project Economic Analysis, the purpose of the economic analysis is to measure the social profitability of a project, that is the relationship of the costs incurred to the benefits obtained by the society as a whole. The underlying principle of economic analysis is to compare the real benefits of any given project with its real costs. The larger the discounted benefits for a

given set of costs, the more worthwhile the project. The primary task of economic analysis is to measure these costs and benefits in terms of a common yardstick. This involves measuring the real value of any input or output, and comparing inputs and outputs across time.[1]

Financial analysis compares the stream of nominal benefits from any project to the stream of nominal costs. Nominal costs and benefits generally involve the use of local market prices. If the present value of benefits is substantially larger than the present value of the costs, then the project is profitable. Financial analysis is used to measure private profitability, that is the profitablity of a project from the point of view of the project owners or actors, in this case farmers. Farmers face market prices, pay taxes, receive subsidies, etc. If the financial analysis results in an adequate financial return, i.e. exceeding what might be earned by alternative use of resources, then it is likely that the actors will behave in ways projected by the project design.

The most common of the discounted measures used to determine if a given project is economically worthwhile are the **Net Present Value (NPV)**, the **Internal Rate of Return (IRR)**, and the **Discounted Benefit Cost Ratio (B/C Ratio)**.

The NPV is calculated by discounting the value of all future incremental net benefits or incremental cash flows to their present equivalent value using the opportunity cost of capital. A positive NPV indicates that the project returns more to society than it consumes. This is a necessary, but not sufficient condition for project acceptance, because if societal resources are scarce, it will not be possible to invest in all projects with positive NPVs and the project with the highest NPV must be chosen.

The IRR is that discount rate that equates discounted costs and discounted benefits (i.e. reduces the present value of the incremental benefit stream to zero). The higher the IRR, the more profitable the project. A project cannot be justified on economic grounds if the IRR is below the opportunity cost of capital.

The benefit-cost ratio is the sum of all of the discounted benefits divided by the sum of all of the discounted costs. If

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[1] When outputs are quantifiable, but not easily reduced to monetary values (e.g. the protection of wilderness area), economic analysis can permit project designers to identify the least cost design from among alternative designs. In least cost analysis, the smaller the costs for any given set of benefits, the more worthwhile the project.

this ratio is higher than one, the project is economically viable. This analysis of the ANR PAAD does not include a benefit-cost ratio, per se, since costs are netted out during the analysis and only incremental values are dealt with. Nevertheless, if the net present value is positive, the benefit-cost ratio will be greater than one.

The **Project Planning Horizon** defines the beginning and ending points covered by the analysis. The beginning point coincides with the start-up of the project. The ending point selected for this analysis is 25 years. While a longer planning horizon is justified, particularly for projects with long lasting environmental costs or benefits, the discounting process causes future benefits to have diminishing present values in the out-years. Normally, benefits realized after 25 years into the future will not have a significant impact on the appraisal. The stream of benefits and costs beyond the terminal year of the Project Planning Horizon are included in the analysis at their discounted value in Year 25, as the environmental salvage value (USAID Manual for Project Economic Analysis, 1987).

C. Part 2: Economic Analysis of the Non-project Assistance Component

The Non-project Assistance component of the project consists of $10 million in debt relief to be paid in 5 tranches. This type of cash transfer is a lump-sum distribution, and in a perfectly competitive market should have no net welfare effects. The money measure of the welfare loss from the transfer is $10 million, and the money measure of the welfare gain is $10 million. Therefore, net present value and internal rate of return analysis are neither relevant nor appropriate. However, there are conditionalities which must be met for the cash transfer, and these have been designed to improve the efficiency of the Gambian economy to make it more closely resemble a perfectly competitive market. Some of these policy changes are necessary conditions for the benefits that are expected from the support project component and are measured there. Other efficiency gains (e.g., from the elimination of the export monopoly of the Livestock Marketing Board) may not be fully accounted for in the Support Project analysis. These other gains are difficult to measure, and the analysis errs conservatively in not counting them.

There are two parts to the economic analysis of the total ANR program. These are (1) the economic analysis of the debt relief under the NPA Program and (2) the economic analysis of the Support Project assistance (i.e. the technical assistance, training, NGO grants, etc.). The actual benefit of the policy reforms themselves are accounted for in the returns generated by

the adoption of NRM practices. As the debt relief only deals with society as a whole and not with the individual, a financial analysis of the NPA debt relief is not necessary.

With respect to the cash transfer for debt relief under the NPA component of the ANR Program, a cost benefit analysis is not necessary. The cost of the NPA cash transfer is the opportunity cost of $10 million invested at an assumed rate of return of 10 percent per year. This yields an annual return of $1 million. The benefit to The Gambia of the dollar debt relief is equivalent to the amount of the dollar transfer converted into the local currency at the shadow price of foreign exchange. Since exchange rate for the dalasi is set by a free market, there is no shadow rate. At the resulting one-for-one ratio, the Net Present Value of the NPA cash transfer will always be zero. Therefore, neither an economic nor a financial cost-benefit analysis would be meaningful.[2]

D. Part 3: Analysis of the Project Assistance Component

For the Support Project activities, the analysis is more complicated. Both the economic and the financial analysis are based on a model of costs and benefits called a **partial farm budget with and without analysis**. This type of analysis compares net returns of the production of crops (the **without** case) with the incremental net returns from NRM practices plus net returns from the base crop production, adjusted for any effects from the NRM practices (the **with** case).

In order to compare these two practices the costs of doing either practice have been previously deducted by removing an equivalent amount of benefits. The value remaining is the net benefit. Thus the value with the NRM practice is higher than the without case. The analysis has been broken down into modules which consider different aspects of the analytical process. The modules are: (1) the budget module; (2) the practices module; (3) the bio-time module; and (4) the results module.

1. The Evolution of the Cost-Benefit Model Used

The analysis uses the standard cost-benefit approach. It is based on a model which relies on particularly solid data and incorporates a strong analytical understanding of the biological and economic relationships of resource-conserving technologies in the Sahel. This data and analytical underpinning are the result of a series of modelling efforts of resource-conserving

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[2] Smith, James, "Cost/Benefit Calculations of NPA Programs" AID/AFR/DP, 1991.

technologies in the Sahel conducted for AID, beginning in 1987.

The model was initially developed to analyze the results of a study of successful natural resources management initiatives in the Sahel.[3] The third volume of the resulting report contains the results of the first modelling attempts. The model was developed by Edward Karch, Kjell Christophersen and Mike McGahuey. The model was further refined during background work for preparing AID's *Sahel Sub-Regional Strategy to Sustain Productivity*.[4]

This model was again modified and used in the preparation of a series of NRM Action Plans and Action Programs prepared under the USAID Natural Resources Management Support (NRMS) Project. This specific model was used in preparing the Action Plans and Programs for USAID Missions in The Gambia, Senegal, Guinea, Mali, and Uganda.

The framework was refined in 1990 to ensure that the biological assumptions more accurately reflected yield increases over time from resource-conserving technologies and was used as the basis for an AID study of the Economic Incentives for Natural Resources Management.[5] This report served as input for the identification of impact indicators for several missions involved in natural resources management.

The model served as a framework for analyzing natural resource-conserving technologies in Senegal in 1991.[6] During that effort, research and project results were collected from a wide range of sources on the biological and economic relationships of resource-conserving technologies, and reviewed by a committee of agroforesters and resource economists. The effort resulted in the biological production functions used in

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[3] A. Shaikh, et. al., *Opportunities for Sustained Development: Successful Natural Resources Management in the Sahel*, 3 volumes, US Agency for International Development, 1988.

[4] USAID, *The Sahel Sub-Regional Strategy to Sustain Productivity*. USAID/AFR/TR/ARD, Washington, 1989

[5] Christophersen, Karch and Arnold, *Economic Incentives for Natural Resources Management*, Special Study No. 4 of the NRMS Project, August 1990

[6] Karch, *Comparison of Agroforestry Practices in Senegal Using Financial Analysis*, 1991.

this cost-benefit analysis.[7] The Senegal effort, which was under the auspices of the USAID-funded Senegal Reforestation Project, involved the financial analysis of a variety of agroforestry practices being used in the Peanut Basin (just north of The Gambia). The purpose was to identify those practices that were financially the most profitable, and hence showed the most potential for acceptance by farmers.

The model was peer-reviewed at an international workshop on agroforestry economics in Hawaii in 1991.[8] Following the workshop, the model was revised to permit the simultaneous analysis of a number of practices, rather than each practice independently. This combination package approach was tested during an economic and financial analysis of the Haiti Agroforestry II Project. At the same time, NGOs working in Haiti were trained in the use of the model to enable them to report on the economic impact of their agroforestry activities.[9]

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[7] The information collected included costs, production, prices, techniques, and so forth. For example, information on windbreaks came from research in Nigeria, Niger and Senegal. Information on field trees came from Senegal, and was based on results of research by the French over a 20 year period. Data on field border plantations came from East Africa and the Senegal Agroforestry Research Station. Information on pole plantations came from the AID-funded Senegal Reforestation Project. Alley cropping information came from the Senegal Agroforestry Research Station and included results from Ziguinchor and Kaolack which are respectively just north and south of The Gambia. Plant competition data on windbreaks came from Niger and from northern Senegal. Fruit tree data came from a horticultural research station and private producers in Ziguinchor. Cashew information came from the German Cashew Project in Senegal, located just north of The Gambia. Live fence information came from the USAID Village Reforestation Project in Mali. Data on the production of leafs and pods from field trees (e.g. Faiderbia albida) came from Senegal. Data on land reclamation and upland stabilization came from the USAID-financed Soil and Water Management Project in The Gambia.

[8] Nitrogen Fixing Tree Association, USAID/US Forestry Service (Forestry Support Program), "Comparison of Agroforestry Practices in Senegal Using Financial Analysis", in *Proceedings of Workshop on Financial and Economic Analyses of Agroforestry Systems*. Nitrogen Fixing Tree Association, Honolulu, HI. (Forthcoming)

[9] Kent Fleming and G. Edward Karch, *Economic Indicators of Agroforestry II Strategy Implementation: Farm Income Analysis to Agricultural Project Analysis*. SECID/Auburn Agroforestry

2. Operation of the Model

a. Overview: Creation of Farm Budgets

The analysis begins with the creation of partial farm budgets (the **Budgets Module**). These are mini-cost-benefit analyses of each separate crop. As each crop has different input requirements and different yields and sells for a different price, each is treated separately and the results are later aggregated. For each crop budget, information was collected on the costs of tillage, planting, weeding and harvest.

Tillage involved estimating the cost and amount of human labor needed, as well as the cost of animal traction. Planting involved these same costs, plus the costs of seed, dressing and fertilizer. Weeding involved human labor and, in some cases, animal traction and possible herbicide costs. Harvest involved human labor and animal traction. The combination of input factors varied by crop.

Human labor costs were disaggregated into the cost of individual labor and the cost of collective labor. The cost of animal traction was calculated based on the costs of feeding, maintaining, and training the animals, and the cost of the tools required for animal traction. It is assumed that all farmers have access to animal traction, either through ownership or rental or other mutual exchange. It is further assumed that the cost of ownership of animal traction is the same as the cost of rental.

The primary source for the crop budgets used in this analysis was the *Soil and Water Management Unit Activity Review*, 1991. This was produced with the assistance of the U.S. Soil Conservation Service under the USAID-funded Soil and Water Management Project. These budgets were calculated based on the collection of field data by SWMU staff. The data contained in the SWMU crop budgets were adjusted by increasing the labor inputs and eliminating fertilizer and herbicide use. The SWMU crop budgets reflected the use of fertilizer and herbicides, as they were an integral part of that project's package. However, fertilizer and pesticides are not widely available in The Gambia nor widely used except for horticultural crops and a few donor projects.

Data on crop yields and farm gate prices used came primarily from the *Statistical Yearbook of Gambian Agriculture*, 1990, published by the Department of Planning in tn Ministry of Agriculture. These are annually updated using sound statistical

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Publication No.37, 1992.

methodology. Yield and price information on groundnut halms (a high value forage comprised of the plant material that is left after the groundnuts have been harvested) were not in the Statistical Yearbook. However, groundnut halms are traded, so data from the Sénégal peanut basin were used.

Yields and prices are used to calculate gross returns per hectare per crop. From the separate crop budgets one obtains non-labor costs and subtracts those from the gross returns. The result is the net returns with labor. The budgets also provide the labor costs for each crop. The net returns with labor and the labor costs for each crop are inputs into the **Practices Module.**

In the practices module all of the basic assumptions, such as prices, degradation rate, land use allocation, and NRM budgets are contained.

One of the general assumptions is an annual decline of 1.7 percent in soil productivity. This is based on a recognition of the fact that total crop production has declined by roughly 11 percent since 1974, while the area cropped has increased by 11 percent. This is roughly a 21 percent decline in production per hectare over an 18 year period, or an annual decline of 1.7 percent. This percentage decline is used as a proxy of the soil productivity decline or soil degradation rate.

General Assumptions		
1$=Dalassi		9
Labor individual		10
Labor group		5
Pole price/M		D3.2
posts, lath, stakes		D2.0
Wood Price/stere		D50.0
Sawlog price /M3		D250.0
Acacia pods	D/kg	D2.0
Nut	D/kg	D4.0
Mango/Tonne		D512.0
Citrus/Tonne		D320.0
Other fruit	D/kg	D2.0
millet	D/kg	D1.60
groundnut	D/kg	D1.40
halms	D/kg	D1.00
maize	D/kg	D1.50
rice	D/kg	D1.20
upland rice	D/kg	D1.20
sorghum	D/kg	D1.50
soil degradation rate		1.70%

Table F-1

In the practices module a base-case hectare without NRM practices is calculated (the base-case hectare serves as a common denominator for the with and without analysis). This is the current net farm income per hectare. Given a mixed farm situation, the base-case hectare incorporates all three activities: crops, forest and grazing. It is estimated that the land use among activities is proportioned as follows: 65 percent for crops; 35 percent for forest; and 45 percent for grazing.

This totals 145 percent of the land use. This reflects the fact that there are often several agricultural activities occurring on the same land area simultaneously. Few practices are exclusive users of land. Land is intercropped and double cropped, there is off season grazing on cropland, and grazing in forests throughout the year. It is logical to assume that crops and forest together total less than 100 percent. Nevertheless,

as long as the same base percentages are used for both the with and without calculations, the actual percentage does not effect the outcome of the analysis.

Cropland is broken down into the percentage of land under each crop. This breakdown comes from the MOA Planning Unit and is adjusted to the 65 percent total crop area. The breakdown is seen in Table F-2.

Base Case Hectare-- net farm income per hectare					766
Crops		Net wi labor	labor cost	net value	net /ave ha
millet	14.8%	1358	34	D1,324	D196
gr.nut	34.8%	1327	34	D1,293	D450
halms		1000	0	D1,000	D348
maize	5.5%	674	34	D640	D35
rice	4.4%	1496	336	D1,160	D51
up rice	1.4%	724	34	D690	D9
sorghum	4.2%	781	34	D747	D31
total	65%		crops net value /Ha		
D1,120					
Forest					
fuel	1 M3/ha	D50	D50	D10	D40
gathered			D50	D10	D40
total	35%		D100	D20	D80
D28					
Grazing	0.10 TAU/Ha				
	3%offtake	250 kg/head			
	0.5 milk				
0.8 kg fgate	D7.0 D/kg		D5.3	D3.0	D2
9 L. Milk	D2.5 D/1		D21.9	D2.0	D20
al	45%		D27	D5	D22
D10					

Table F-2

For cropland, the labor costs are subtracted from the **net value with labor costs** (both of which come from the budget module) to give an estimate of the net value per hectare of the crop. This is multiplied by the percentage of land under each crop. The result is totalled for all crops which gives the net value per hectare for all crops. This constitutes the crops portion of the base-case hectare.

Forest lands constitute 45 percent of the land area in The Gambia. Of this, 10 percent is either National Forest Parks or mangrove swampland, which are not grazed. Thus, an estimated 35 percent of land in The Gambia is forest land that has a productive use (e.g. for grazing and forest products). To estimate the forest portion of the base-case hectare, the amount of fuelwood and other forest products gathered is estimated. The labor entailed in gathering these products is deducted to come up with a net value, which is multiplied by 35 percent to arrive at the forest portion of the base-case hectare.

To calculate the grazing contribution to the base-case hectare, the number of animals (in terms of tropical animal units, TAUs) is calculated, together with meat and milk production. The cost of labor is then deducted. This provides a net value from grazing. This value is multiplied by 45 percent to get the grazing contribution to the base-case hectare.

The crop, forest and grazing portions of the base-case hectare are combined to create a base-case hectare. This is

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essentially the net return per hectare from mixed farming in The Gambia based on current practices (the without case).

The next step is to calculate partial farm budgets incorporating the use of NRM practices (the with case). NRM practices considered are presented in Table F-3.

Estimates were made of the percent of land use for each NRM agroforestry practice. These percentages were estimated based on experience in adjoining countries, along with practices already underway in the Gambia.

Practices	
	% of Land Under Mgt plan
	10.0% Field Trees
	1.0% Fruit Orchard
	1.0% Nut Orchard
	2.0% Block Plantation
	6.0% Windbreak
	4.0% Live fence
	1.0% Roadside
	3.0% Border (field)
	5.0% Land Reclamation
	35.0% Field Stabilization
	35.0% Natural Forest Mgt.
	45.0% Grazing Management
	148%

Table F-3

An NRM budget was prepared for each NRM practice. Examples illustrating the format are seen in tables F5 to F7. It must be kept in mind, however, that the values included in these tables are not static. Changes in inputs outside of the table can affect the values within the table. Essentially, these tables represent integrated formulas. The values therein are the outcome resulting from the assumptions made earlier in the analysis. Modifying the assumptions will necessarily change the values in these tables.

b. Partial Budgets for Agroforestry Practices

Each NRM budget assumes that the normal practice is crop production in most cases and that any introduced NRM agroforestry practice takes up area currently dedicated to crop production and will therefore entail additional costs.

The analysis contained in these NRM budgets is illustrated using the case of field borders seen in Table F-4. It is assumed that there is 5x5 meter spacing in a single row all around the field, or 80 trees/hectare. At 6 square meters per tree this is roughly 500 sq meters of land lost to production, or 5 percent of the total land area.[10] Costs are calculated for the trees

[10] The actual land requirement of a border tree is estimated at 12 square meters, but half of that is on someone else's hectare or on a footpath. In the field tree partial budget, field trees are assumed to take up 4 square meters each. This lower figure comes from assuming that the field tree species used is Faiderbia albida. Since F. albida drops its leaves during the rainy season and thus does not shade growing crops, the only significant effect on land availability is the trunk.

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themselves, the labor involved in planting and protecting the them, the maintenance of the trees (assumed at 2 days/year in years 1 and 2). In terms of benefits, production is estimated at 3 meters of pole per tree, and 10 laths and 10 steres of fuelwood per hectare in Year 7, and every 5 years thereafter. The trees will be lopped for fodder during the dry season, and a value is estimated for that. The quantity of each output is multiplied by the price to get a gross value per hectare from the border plantings.

Border				
Trees/ha	5 x	5 spacing	1 rows	80
Cropping space lost		6 m2 /tree	500 m2 total	5.00%
Costs				
Fencing				D320
Plants				D256
Transport				D0
Tools				D0
Pesticide				D0
Fertilizer				D0
Labor	2	individual	3 group	D35
Total				D18
spot maint	2 days in years 1&2		(hand set in biotime)	
annual	0 days			
Benefits			amt/ha	dalasi/ha
Poles M/tree	3	per coppice	7	23
Stakes, Lath/tree	10	per coppice	24	48
Fuelwood St/ha	10	per coppice	0	15
Sawlogs M3/ha	0	final cut	0	0
Avg coppice rotation		5	(hand set in biotime)	
First cut		7	(hand set in biotime)	
Sawlogs cut		20	(hand set in biotime)	
Net Crop Value /ha				32
Fodder and pod		D360		11

Table F-4

The net value per hectare for borders is calculated by reducing the base-case hectare by 5 percent to compensate for lost land, and multiplying it by the percent of land under the particular practice (in this case 3 percent for border trees).

This gives an interim crop value per hectare from this particular NRM agroforestry activity, one that does not yet deal with the impact of border trees on crop yield, e.g. from nitrogen fixation or competition. This will be estimated later in the analysis.

Using the above approach, interim crop values per hectare are calculated for each NRM agroforestry activity.

c. <u>Partial Budgets for Soil and Moisture Conservation Practices</u>

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Partial budgets were also created for two soil and moisture conservation practices: land reclamation and upland stabilization.

Land Reclamation

Land reclamation primarily involves the protection of land from salt water intrusion, in order to produce swamp rice and other crops. It is accomplished through the construction of dikes and bunds and to some extent requires the levelling of land. The costs involved are twofold, they include: (1) Soil and Water Management Unit costs, which are composed of personnel, fuel, and equipment; and (2) participant costs, which is all labor. There are also maintenance costs (labor at approximately 5 days/year). SWMU operating costs are not accounted for as a production cost since funds covering their incremental costs are assumed to be covered under the NGO grants program (the NGOs will contract with SWMU for soil and water conservation field work).

```
Land Reclamation
   Construction Costs
   staff                    government costs
   fuel                     government costs
   equipment                government costs
   Labor          0  individual     120 group     D600
   Total maintenance labor                          600
     spot labor    0 days in years          (hand set)
     annual        5 days
   Benefits         rice                          vegetables
         2750 kg/ha on new land             50%% of land used

        D1.20 price/kg                     18000 D/ha
       D3,300 /per ha value                 9000 /ha value
          126 ha/yr                          126 ha/yr
         9149 total Gambia swamp ha         9149 total swamp
ha
        1.38% increase in  area             1.38%increase
area
          D45 value increase                D124 value
increase
   net crop value
D51.64
  -----------------------------------------------------
Upland stabilization
   Upland crop land reduction          5.00%
   Net Crop Value /ha                   372
   Fodder and pod cost/ha  D360  total  11
```

Table F-5

Benefits are the new production which will occur on the reclaimed land. This includes:

(1) Rice Production: New area under rice production is calculated to be 126 hectares per year (single rainfed crop). This figure is based on the annual workplan projections of the Soil and Water Management Unit. This is a 1.38 percent increase in the total area in rice production currently in the country. This would mean a 1.38 percent increase in the total value of rice produced. One can get 2,750 kg/ha of rice on newly reclaimed land. This sells for D1.20/kg, which gives D3,300 per hectare. A 1.38 percent increase is D45, which represents the additional value of rice production resulting from the reclamation of one

hectare of land.

(2) Vegetable Production: It is assumed that one half of the 126 hectares of reclaimed land is used for contra-season vegetable production. The value of a hectare of vegetables is estimated at D18,000. Multiplying D9000 (for one half hectare) by the 1.38 percent increase in the total area of vegetable production gives D124, which represents the total additional value of vegetable production resulting from the reclamation of one hectare of land.

Summing these two values gives D165, which represents the total additional value of production resulting from the reclamation of one hectare of land. This value is multiplied by the percent of land under land reclamation from Table F-3 to get Net Crop Value.

Upland Stabilization

Under upland stabilization there is a land deduction of 5 percent (taken up by contour bunds), and hence a reduction in crop income of 5 percent. One multiplies that by the proportion (35 percent) of upland stabilization in the practices table F4.

d. Partial Budgets for Natural Forest and Rangeland Management

Natural forest and rangeland management also includes grazing management. Contra season grazing on crop lands is not managed (farmers are not specifically producing the residue for fodder). Therefore the grazing portion is included in the natural forest management.

No crop value is considered for natural forest and rangeland management. Costs are estimated for delimitation (labor); firebreak clearing, planting and maintenance (labor and plant material); fencing (labor and fencing material); and taxes for livestock. No value is imputed for severance taxes on trees, since the amount is undetermined and, in any case, will be minor.

Forest production is in the form of poles, laths, sawlogs, fuelwood and gathered materials (medicinals, honey, etc.). The data on production levels and prices were provided by the Gambia German Forestry Project.

Economic benefits from improved technologies in range management include reduced mortality and better nutrition through the provision of improved range resources, particularly during the dry season. This will result from the introduction of improved practices, such as controlled grazing on rangelands and

Natural Forest Management				
Costs				
Establishment	number/ha	price/unitlabor/ha		Total
delimitation			3	
Fencing			2	D320.0
firebreak clearing			3	
planting			2	
trees	500	D4.0		D2,000.0
Tax cow /ha	1			D1.0
tax tree/ha				D0.0
Labor		individual	9 group	D42.9
Total establishment costs				D827.4
spot maint	0 days in years			
annual	2 days/ha			D3.5
Benefits				
Poles M/ha	40 annual	D3.2		D44.8
Stakes, Lath	100 annual	D2.0		D70.0
Fuelwood St/ha	8 annual	D50.0		D140.0
Sawlogs M3/ha	6 annual	D250.0		D525.0
grazing	0.30 TAU/Ha		kg/head	
7%offtake	5.3 kg fgate	D7.0 D/kg	kg/head 250	D16.5
1.5 milk	79 L. Milk	D2.5 D/l		D88.6
net crop value				D0.0
Minor Forest Products		D500.0		D175.0

Table F-6

control of burning. Livestock production is in the form of meat and milk. The values are based on a higher TAU per hectare, higher offtake rate, and higher milk production. The production levels and prices were calculated based on data from the UNDP Livestock Project at Dankunku.

e. Application of Biological Production Functions and the Soil Degradation Rate

The bio-time module applies biological production functions to the interim crop values to obtain cash flows per hectare. The biological production functions represent the changes in yield (or value) over time due to specific practices. Introducing the time factor is necessary, since the effects of NRM practices will vary over time. For example, the effect of windbreaks on crop yields will be low in the early years, when the trees are small. As the trees mature their impact in terms of conserving soil moisture (by reducing wind) increases, but they also begin to compete with crops for soil moisture. Eventually, the negative effect of competition outweighs the positive effect of the moisture protection. Thus the biological production function for windbreaks is a bell shaped curve.

Table F-7 provides the biological production functions for each NRM agroforestry or soil conservation practice -- reflecting

percent changes in normal crop yields due to the practices over the entire 25-year Project Planning Horizon (only the first 9 years are shown in the table). As noted earlier, these biological production functions are the result of an in-depth analysis of experience with resource-conserving technologies in Africa, particularly in the Sahel.

Bio-economic functions -- percent change

Year >	0	1	2	3	4	5	6	7	8	9
field trees crop yield	0%	0%	0%	1%	2%	3%	3%	5%	6%	
fruit full production	0%	0%	0%	10%	25%	50%	90%	100%	100%	
windbreak crop yield	4%	7%	12%	17%	19%	20%	20%	20%	20%	
live fence crop yield	4%	7%	12%	17%	20%	20%	20%	20%	20%	
nuts full production	0%	0%	13%	37%	43%	47%	50%	63%	70%	
leaves/pods full prod.	0%	0%	0%	2%	3%	5%	7%	9%	11%	
competition yield reduction	0%	0%	1%	3%	5%	10%	15%	19%	22%	
Land reclaim full	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Upland stab. full	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
net windbreak full prod.	4%	7%	11%	14%	14%	10%	5%	1%	-2%	
competition full prod.	0%	0%	-1%	-3%	-5%	-10%	-15%	-19%	-22%	

Table F-7

For each practice, the incremental crop value is derived from the application of the production function to the interim crop value. Other costs and benefits are allocated to the time space in which they occur. The soil degradation rate is applied to the net crop value of the without case over time, which results in a declining yield over time.

f. Extension and the Spread Rate

The without case from the bio-time module and the with case from the bio-time module are compared to find the **incremental value**, the difference between the with and without NRM cases. This incremental value is multiplied by the spread rate.

The spread rate is the rate at which this technology is projected to be adopted, either due to extension or demonstration. In the present case, the spread rate is a geometric function that would cover all of the acceptors or participants in The Gambia in a period of 35 years.

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GAMBIA AGRICULTURE AND NATURAL RESOURCE
PAAD Economic and Financial Analysis
Extension and Spread Rates

		Year	0	1	2	3	4	5	6	7	8	9	10
		Hectares effected	400	868	1416	2056	2806	3683	4709	5909	7314	8957	10880
		new ha	400	468	548	641	750	877	1026	1200	1405	1643	1923
% of Land		Practices											
Under Mgt plan													
	10%	Field Trees	40	87	142	206	281	368	471	591	731	896	1088
	1%	Fruit Orchard	4	9	14	21	28	37	47	59	73	90	109
	1%	Nut Orchard	4	9	14	21	28	37	47	59	73	90	109
	2%	Block Plantation	8	17	28	41	56	74	94	118	146	179	218
	6%	Windbreak	24	52	85	123	168	221	283	355	439	537	653
	4%	Live fence	16	35	57	82	112	147	188	236	293	358	435
	1%	Roadside	4	9	14	21	28	37	47	59	73	90	109
	3%	Border (field)	12	26	42	62	84	110	141	177	219	269	326
	5%	Land Reclamation	20	43	71	103	140	184	235	295	366	448	544
	35%	Field Stabil	140	304	495	720	982	1289	1648	2068	2560	3135	3808
	68%	sub Total Agrofor	272	590	963	1398	1908	2504	3202	4018	4973	6091	7398
	35%	Natural Forest	140	304	495	720	982	1289	1648	2068	2560	3135	3808
	45%	Grazing Mgt.	180	391	637	925	1263	1657	2119	2659	3291	4031	4896

Table F8 Table 9

The spread rates used in this analysis are considered conservative. (The effective spread rate used in this analysis is about half of that used in the PAIP). By the 5th year (Year 4 in Table F-8), it is assumed that 2,806 hectares will be under various forms of improved management. Based on current land use patterns, this is 1,263 hectares in improved rangeland pasture land, and 982 hectares of managed forest, with the remaining 1908 hectares in crops (including tree crops). Based on the average farm size of 4 hectares per household (dabada), this would require reaching 477 farm households. If one assumes the involvement of approximately 25 farm households per village, the ANR Program would have to be working in 19 villages by the 5th year. The analysis assumes that the spread rate will continue to increase after the project itself ends. This is based on an assumption that villages without any direct NGO presence will begin to adopt some of the techniques being used in the NGO

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target villages.

Gambian farmers have shown a disposition to rapidly adopt worthwhile technologies. Sesame, promoted by Catholic Relief Services (CRS) in the late 1980's, expanded from zero to nearly 12,000 hectares in only three years, even though CRS' direct activity was limited to only a small portion of the total hectares. Although farmers have reduced production to approximately 4,000 hectares today in the face of marketing bottlenecks, their willingness to adopt new practices cannot be dismissed. Maize production in the mid-1980's more than doubled in three years in response to the introduction of new varieties. Similarly, timely fattening of rams for sale in the Tabaski season (during the Muslim feasts), introduced jointly by CRS and the GARD project in one village two years ago, has caught on nationwide, again without direct intervention of NGOs or the GARD project in many locations. The Dankunku Project, which will serve as a model for livestock interventions under the ANR Program, currently involves grazing management of 3,150 hectares.

Table F-9 presents the results of the analysis, which combines the spread rate with the annual incremental value to calculate the final cash flow, which is discounted to gives the Net Present Value. These calculations involve a number of steps:

- In Year 1, the number of new hectares is multiplied by the incremental value in Year 1 to give an aggregate incremental value for Year 1.

- In Year 2, the number of new hectares is multiplied by the incremental value in Year 1, and the number of original Year 1 hectares is multiplied by the incremental value in Year 2, to give an aggregate incremental value for Year 2.

- This process is continued throughout the Planning Horizon.

- All of the aggregated returns are summed, and the project costs subtracted, to give the project cash flow.

- After Year 25, the remaining cash flow continues to increase as more farmers adopt NRM practices until Year 35, at which point all farmers who can be expected to adopt practices will have done so.

It should be noted that the analysis assumes that disbursements begin immediately in Year 1 (effectively at the date of obligation) and occur in equal annual amounts. In actual fact, the disbursements for the Support Project will increase gradually. Disbursements in Year 1 are likely to be

EXTENSION PROJECTION AND RESULTS

Results

Project Budget	12000000 $$	
Project Budget	108,000,000 D	**without**
Discount	10%	**environmental**
		salvage
NPV D	D466,717,270	46,606,353
NPV $	51,857,474	5,178,484
IRR	21%	13%

Year	0	1	2	3	4	5	6
Net Returns /Ha							
without NRM	766	753	740	728	715	703	691
with NRM	-517	1966	1968	1993	2048	2122	2121
incremental value	-1283	1213	1228	1265	1332	1418	1430
Hectares effected	400	868	1416	2056	2806	3683	4709
new ha	400	468	548	641	750	877	1026
Total increment	-513298	1053162	1738016	2600724	3737957	5223556	6731591
Project cashflow	(22,113,298)	(21,715,231)	(21,243,702)	(20,677,204)	(19,987,432)	2,454,060	3,443,081
Project Costs (in dalasis)	(21,600,000)	(21,600,000)	(21,600,000)	(21,600,000)	(21,600,000)		
0	-513298	485328	491118	505927	532898	567355	571830
1		-600559	567834	574608	591935	623490	663806
2			-702654	664366	672291	692563	729483
3				-822105	777308	786580	810299
4					-961863	909450	920299
5						-1125379	1064057
6							-1316694

Table F-9

significantly lower than those in later years. This adds an additional element of conservatism to the analysis.

g. Calculating the Environmental Salvage Value [11]

As discussed in the AID Manual for Project Economic Analysis, any resources remaining at the end of the projects Planning Horizon must be included as a benefit to the project. If the resource is not to be further used in the project, then its value is determined by its alternative use, which may be its selling price or scrap value. If further use is to be made of the resource, then its terminal value can be estimated by taking the stream of benefits from the resource beyond the terminal and converting the stream to its present value at the end of the planning horizon (in this case Year 25) using the opportunity cost of capital as the discounting factor. A similar approach can be used to include the value of an environmental benefit or cost that occurs after the end of the Planning Horizon, referred to as the **environmental salvage value**. This amount is calculated as a terminal value by estimating the stream of benefits and costs beyond the terminal year using the standard present value approach.

In this particular case, because the benefits continue to increase until Year 35, the level of benefits at Year 35 is taken and then projected as a sustainable benefit stream into the distant future (in this case to Year 250). This cash flow line from Year 26 to Year 249 is discounted to Year 26. This is the value remaining at the end of the planning horizon. This value is then included in the cashflow as if it occurred as a lump sum in Year 25. Finally, this revised Year 25 amount is discounted to the present to give the Net Present Value.[12]

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[11] The AID Manual for Project Economic Analysis suggests the use of the concept of environmental salvage value. This involves arbitrarily choosing an ending period for the project time horizon and adding a terminal value for environmental salvage. Since the terminal value is simply the discounted value of all future environmental benefits beyond the life of the project, this is mathematically equivalent to extending the planning horizon infinitely. One would achieve virtually identical results in terms of net present value and internal rate of return using either environmental salvage approach or discounting the entire benefit stream into the far future.

[12] The formula for calculating Net Present Value is:

$$NPV = \sum_{t=1}^{T} \frac{NB_t}{(1 + r)^t}$$

3. Results of the Financial Analysis

In the financial analysis, a discount rate of 10 percent is used. This is a commonly used discount rate. Research results from neighboring Senegal indicate that actual interest paid (and hence the opportunity cost of capital in rural areas) is actually lower - about 6 percent (thus making the financial analysis used here conservative). [13]

At a discount rate of 10 percent, the **Net Present Value** of the proposed project, under the assumptions used in this analysis, is positive, and thus the project is economically viable. The project would stop being viable at a discount rate of 21 percent, the rate at which the net present value of this project would fall to zero. Thus, 21 percent is the project's **Internal Rate of Return**. If the cost of money is less than 21 percent the project is viable. If the cost of money is greater than 21 percent, there should be an alternative investment that would give a higher return. Based on these results, it can be concluded that level of return is sufficient to indicate probable financial success of the project and should give sufficient timely returns to the participants to ensure their participation.

If all of the discounted costs and all of the discounted benefits are totaled, and the discounted benefits are divided by the discounted costs, the result is the **Benefit-Cost Ratio**. If this ratio is higher than one, the project is economically viable. The analysis of the ANR Program has not examined the benefit-cost ratio, as costs were netted out during the analysis and only incremental values remain. As the net present value is positive, however, the benefit-cost ratio will be greater than one.

NB = Net benefits (negative or positive) in each time period
t = Specific time period, usually a year
T = The total time periods in the Project Planning Horizon (where t = 1 is the first period)
r = The opportunity cost of capital

[13] Coopération Italienne, 1989, Différentes formes de crédit et d'épargne en milieu rural au Sénégal , in Stratégies et Politiques Alimentaires au Sahel, Université de Ougadougou.

Gaye, Matar, 1989, Le crédit in formal en mileau rural Sénégalais: Enquête dans les régions de Fatick et de Kaolack, in La Politique Agricole au Sénégal , Vol 1 No. 2, ISRA Dakar

4. Results of the Economic Analysis

a. Difference Between the Economic and Financial Analysis

As the economic and financial analyses both use the same modeling framework to determine the cash flow, the difference between the two analyses is set by multipliers in the practices module. Prices used in the economic analysis are 1990 prices. Farm gate prices are used for most of the economic and all of the financial analysis, as the market is freely functioning with little or no taxation or subsidies. The exchange rate is also determined in a free market. There are no imported inputs provided by the project. The project portion of the program consists of technical assistance and NGO grants. There is no project construction. For the economic analysis the one tax found on cattle is removed. Poles and fuelwood were shadow priced at twice the market price to reflect the true cost of production (the market price does not adequately reflect the marginal cost of producing another unit of wood). This is the result of allowing illegal cutting to occur, in effect subsidizing illegal cutting and hauling. The opportunity cost of off-season labor is assumed to be 50 percent of the off season labor cost. The labor portion of the NRM practices that are not peak season are lowered by 50 percent. The discount rate chosen is 6 percent to reflect the longer term view of resource allocation for society as a whole when dealing with the natural resource base.

b. Economic Analysis Results

The economic analysis returns a positive NPV and shows an Internal Rate of Return (IRR) of 21 percent. The Gambia will receive sufficient returns as a society to merit allocation of resources to the ANR program.

5. Sensitivity Analyses

Sensitivity analyses address uncertainty. It is not known what will happen to prices, or if the extension spread rates will be met, etc. So these variables are systematically raised and lowered to determine the impact on the results for each unit of variance.

The variables tested were:

- Prices of all commodities
- Discount rate
- Spread rate

- **Soil degradation rate**
- **Project budget and distribution**
- **Crop yields**

Changes up to plus or minus 50 percent, in 10 percent increments, were made to the variables and resulting percent changes were observed in the NPV. All results are linear with the exception of price which varied less with increase than decrease, and discount rate which is naturally curvelinear. This means as prices increase they have less and less effect on NPV of the project.

Adding another two million dollars to the project resulted in a reduction of the IRR to 20 percent. Spreading this augmented budget over seven years instead if five years, returned the IRR to 21 percent.

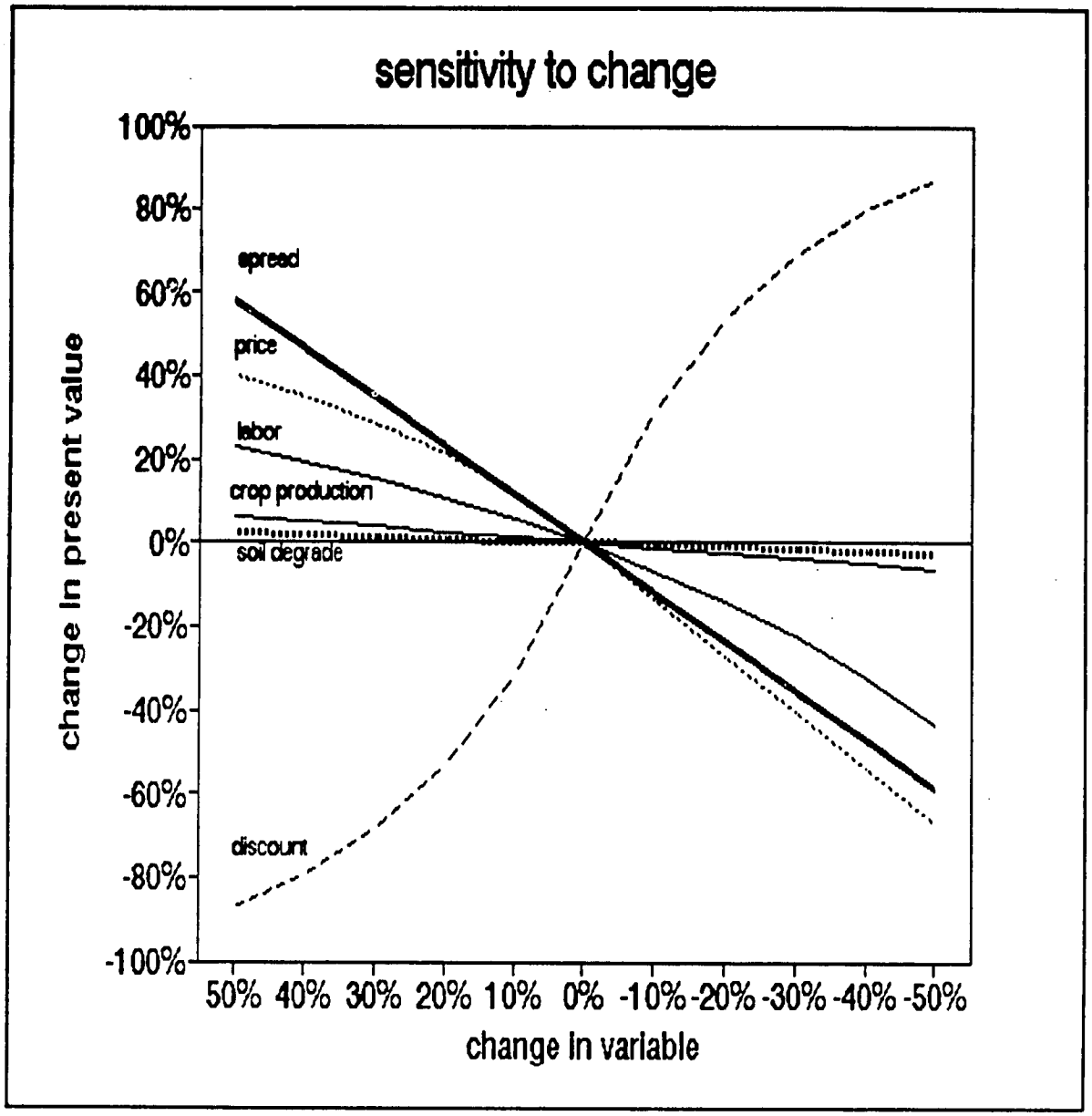
Variance in crop yields is similar to the effect of long term climatic change. It was found that lowering or raising the yields changes the NPV but the IRR remained at 21 percent. This result is due to the fact that the project assumes significant diversification of product mix within the farming system, and hence the risk is spread.

E. Part 4. Limitations of the Economic Analysis

The above economic and financial analyses demonstrate that, given the assumptions made, the returns from the proposed ANR Program are sufficient to justify the project. The economic returns calculated above, however, actually understate the potential long-term benefit of the ANR Program to The Gambia. This is for several reasons.

First, the analysis undertaken was limited to market benefits accruing to individuals. A number of non-market benefits and public goods are likely to be created as a result of this project. For example, the improved forest management practices may contribute to maintaining biodiversity and preventing species extinctions. These are public goods, the benefits from which are not currently traded in a market. They are, therefore, difficult to measure. However, it is quite possible in the long run that they would have an economic impact. For example, the expanded biodiversity could be a key element in an eventual expansion of the tourist industry.

Second, the analysis did not measure benefits to consumers of the increased farm production. Measuring demand for these products would be difficult, and the analysis was based on static prices. However, consumers would surely benefit from increased



production at current prices, or the increased production might lead to lower consumer prices (this would lower the benefits to producers). By not measuring these consumer gains, the analysis understates the project's potential benefits.

Third, the standard tools for project economic analysis (e.g. cost-benefit analysis, net present value, internal rate of return) do not take into account inter-generational equity, particularly when there is a risk of the depletion of the resources. The discount rate upon which these analytic tools are based is a measure of the time value of money. By definition, the discount rate assumes that a given level of benefit in the future is worth less than the same level of benefit today. Discounting is necessary not only to reflect the preference for

current consumption over future consumption, but also uncertainty about future conditions (including the impact of technological change on supply and demand).

It has been strongly argued that the fact that future generations have no voice, and that their willingness to pay is not factored into the analysis of whether or not to deplete a resource, produces a bias in favor of consumption by the present generation at the expense of the next. This inter-generational equity bias would be particularly important for resource poor countries, such as The Gambia, where dependence on natural resources is likely to remain very high.[14]

Even the use of the environmental salvage value concept does not account for this intergenerational bias. In the case of the ANR Program, one has an investment which should improve the resource base. One could, however, quite easily have an investment that leads to a declining resource base. Both would have an environmental salvage value which would be included in an economic analysis.

In effect, a requirement that projects meet high discount rates shifts cost burdens forward to later generations. It also means that projects with social benefits that occur in the distant future will be discriminated against. For exhaustible resources (e.g. minerals), the higher the discount rate, the greater the value of present resource extraction relative to future extraction. This encourages early extraction and accelerates the speed at which the resource is exhausted. Similarly, with respect to renewable resources (e.g. forests) high discount rates on investments encourage exploitation in the present, and thus the depletion of renewable resources. Basing project investment decisions on discounted indicators also

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[14] There is a growing body of literature on the problems of using orthodox economic analysis to evaluate natural resource investments. One reference is the London Environmental Economics Centre, Environmental Economics in the Developing World, report to USAID, May 1990 (which served as the source of much of the argument presented here). Other references include: Anil Markandya and David Pearce, Environmental Considerations and the Choice of the Discount Rate in Developing Countries, World Bank working paper, 1988; David Pearce, Anil Markandya, and Edward Barbier, Sustainable Development, Resource Accounting and Project Appraisal: State of the Art Review London, 1989; J. Bojo, K.G. Maler, and L. Unemo, Economic Analysis of Environmental Consequences of Development Projects, Stockholm School of Economics, 1988; and Robert Solow, "On the Intergenerational Allocation of Natural Resources: Scandinavia Journal of Economics, vol. 88, no. 1, 1986.

discriminates against projects with long gestation periods, such as afforestation with slower growing native species, rather than fast growing exotics.

Part of the problem is that orthodox economic analysis is dependent upon the accurate valuation of costs, benefits, and capital stock (including the stock of natural resources). The failure to correctly value natural resources in the decision making process will inevitably lead to the degradation of the resource base. Anything that is effectively sold at a price below its true value will be overused. Although the economic analysis used here put a shadow price on poles and fuelwood, there is no reliable way of calculating these shadow prices. At the same time, shadow pricing less tangible resources, such as soil fertility, is very difficult.

Depletion of the natural resource base is inadequately reflected in the market place (a market failure). Although increasing scarcity of a resource will cause its price to rise, the price adjustment may come too late to restore a sustainable harvest balance and the resource production opportunities may no longer exist. For example, the improvement of soil that has washed into the river is not possible, and the formation of new soil is measured in geologic time. Similarly, the extinction of wildlife is irreversible. This is in contrast to man-made capital, which can be destroyed and rebuilt. Ideally, economic appraisal of projects would correct for market failure through shadow pricing. However, adequately valuing the natural resource base, and the cost of the depreciation of that base, is very complex.

The prices of natural resources should reflect their full value, which should be linked not only to the cost of extracting and transporting the resource, but also to external environmental and user costs. External environmental costs are costs that resource extraction imposes on others, e.g. the loss of watershed protection benefits when forests are cleared. User costs involve the loss of benefits to future generations due to unsustainable management.

Renewable resources should be consumed on a sustainable basis. Thus, the long-run rate of harvesting should equal the potential rate of regeneration. When the stocks of natural resources are declining or are below any reasonable estimate of what the long run optimal natural capital stock should be (as is currently the case in many developing countries), it is economically rational to make investments aimed directly at increasing natural stocks, as well as at preventing them from falling further. What is needed, and what orthodox cost-benefit analysis does not readily provide, is a method of optimization, based on sustaining or improving the resource base, rather than maximization of immediate returns based on the depletion of the

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present resource base.

One might not need to hold the stock of environmental assets constant over time. However, in order to compensate for the environmental losses incurred in some projects, it would be necessary to ensure that the country's portfolio of investments included offsetting investments in the environment. These investments would not necessarily pass standard project appraisal tests. This rationale would probably justify the use, in appraising the ANR Program, of a discount rate equal to the estimated soil degradation rate in The Gambia. By this criterion, the ANR Program would make economic sense even at a discount rate of -1.7 percent.

ANNEX G: MACROECONOMIC PERFORMANCE STATISTICAL TABLES

ANNEX G: MACROECONOMIC PERFORMANCE STATISTICAL TABLES

Price Index
(1974 = 100)

	1985	1986	1987	1988	1989	1990	1991
INDEX	361.6	616.0	753.6	832.2	889.2	1013.9	1068.1
Annual % change	12.4	70.4	22.3	10.4	8.0	14.0	5.3

Note: Index is for end of June each year.

Current Account Deficit/Surplus
(In percent of GDP)

	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92*
Excluding Official Transfers	-29.7	-35.28	-29.8	-13.2	-18.1	-13.2	-13.9
Including Official Transfers	-1.1	-3.4	7.1	1.9	-2.7	-0.1	0.3

*Projected Source: IMF

Government Budget Deficit/Surplus
(In percent of GDP)

	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92**
Excluding Grants	-12.8	-15.7	-16.8	-4.1	-8.2	-4.1	-3.9
Including Grants	-6.0	-5.1	-7.2	1.8	-1.7	1.3	2.5

*Includes exceptional budgetary provision of D111.0 million for repayment of parastatal debts.

**Estimated

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External Arrears and Official Reserves
(In Million of SDR's)

	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92*
Arrears	81.3	41.8	32.3	19.3	20.7	0.0	0.0
Official Reserves	1.4	10.9	20.4	16.4	25.4	44.9	67.9

Debt Service Ratio
(In percent of net exports and travel income)

	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92*
Including the Fund	25.0	104.2	49.6	49.4	52.6	23.8	22.3
Excluding the Fund	15.0	71.0	38.0	41.6	45.4	16.4	17.8

Note: Net exports defined as total exports minus imports used for re-exports.

National Income and Population
(Annual percentage Change)

	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92*
Real GDP	-0.3	5.4	5.5	4.3	5.2	2.3	4.0
Population	3.4	3.4	3.4	3.4	3.4	3.4	3.4

*Estimated
Source IMF

The Gambia: Performance Under the 1990/91 Program

Objectives	Status or Outcome
Real GDP growth of 4.5 percent.	Revised projection: 4.0 percent.
Inflation (CPI): End-of-period: 6.0 percent for the year ending June 1991.	Not observed (12.4%).
Overall balance of payments surplus: SDR 20.7 million.	Projected outcome: SDR 22.1 million.
Accumulation of official reserves: SDR 21.3 million for 1990/91.[1]	Projected outcome: SDR 19.5 million.
Policies	
External sector policies	
Maintain flexible exchange rate policy in the framework of the interbank market.	Observed.
Remain current on external obligations and eliminate all remaining external payments arrears.[1]	Observed; all external payments arrears were eliminated in July 1990.
No increases in short-term public sector outstanding debt, and no contracting of medium- or long-term non concessional debt in the 1- to 5- and 1- to 12-year maturity ranges.[1]	Observed.
Groundnut sector policies	
Allow the GPMB flexibility in determining its own purchase price of groundnuts in line with world market prices and costs.	Observed.
Establish an appropriate framework to enable interested traders to enter into arrangements with the GPMB for the use of its processing facilities by end-October 1990.[2]	A draft framework was prepared in October 1990, but was not finalized until February 1991.
Provide credit to the GPMB for crop financing on commercial terms.	Observed.
Take a decision on linking the GPMB's generator into the power grid of the GUC by end-October 1990.	Decided in October 1990 that such a linkage was not feasible.
Fiscal policy	
Reduce fiscal deficit in 1990/91 (excluding foreign grants) to 4.8 percent of GDP.	Revised projection: 4.1 percent of GDP.

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Phased introduction of import duties on fuel purchases by Gambia Utilities Corporation (GUC).	Duty increased to 50 percent of the regular duty in the 1990/91 budget and to 75 percent of the regular duty in the 1991/92 budget.
Adjust sales tax on international tour packages to 10 percent with effect from the 1991/92 tourist season.	Adjustment took effect January 1, 1992.
Adjust domestic petroleum prices during 1990/91 in response to increase in world prices in order to maintain revenue collection.	Observed; domestic prices were adjusted in August 1990 and November 1990.
Collection and publication of the import tariff revision by end-April 1991.[2]	Pending the change to a new nomenclature, the existing tariff book was updated and published in April 1991.
Seek external technical assistance to improve the management and operational efficiency of the customs administration during 1990/91.	Observed; technical assistance was completed and report issued in January 1992.
No government transfers and lending to the GPMB and the GUC.[1]	Observed.
Prepare medium-term public expenditure programs (PEPs) for the ministries of Agriculture, Health, Education, and Works and Communications by end-December 1990.	Preparation of the PEPs was completed during 1991/92.
Limit government current expenditure (excluding interest payments) to D329.0 million.[3]	Current expenditures were D348 D348 million in 1991.
Adoption of a public investment program for 1991/92-1993/94 in accordance with criteria priorities established under the ERP.[2]	Observed.
<u>Public enterprises reform</u>	
Determine the future ownership structure of the Livestock Marketing Board by March 1991.	Delayed. Disposition of LMB is still under discussion and is discussed in ANR PAAD.
Complete implementation of a staff retrenchment program for the GUC by end-October 1990.	Observed.
Offer for sale the Ferry Services by end-March 1991.	Delayed. The Ferry Services have been restructured and are scheduled to be offered for sale in 1992.
Offer the GUC for lease by end-May 1991.	Delayed. A management lease for the GUC is expected by end-July 1992.

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Offer for sale to the public all government-owned shares of the Gambia National Insurance Company (GNIC); offer the Dockyard for lease; and offer the Kotu Mechanical Workshop for sale with a lease option.	The GNIC has been sold and the Dockyard has been leased for a ten-year period. The Kotu Mechanical Workshop was offered to lease with a buy option.
Sign performance contracts with GPTC, SSHFC, and GAMTEL; and renew the three-year performance contract with the GPA.	Observed.
<u>Monetary policies and financial sector reform</u>	
Achieve the programmed contraction of net domestic assets of the Central Bank.[1]	Quarterly targets observed through March 1991; were expected to be observed for June 1991.
Limit net credit to the Government from the banking system to the programmed levels.[1]	Quarterly targets observed through March 1991; were not observed for June 1991, owing to a shortfall in external assistance.
Limit gross domestic credit to the GPMB to the programmed levels.[3]	Quarterly targets observed through December 1991; benchmark for March 1991 was not observed, and benchmark for June 1991 was not expected to be observed, owing to delays in export shipments.
Offer for sale to the public the Government's holdings and those of the GPMB and The Gambia Cooperative Union (GCU) in the GCDB by end-May 1991.[4]	GCDB has been sold.
Move to a system of indirect liquidity control.	Observed; introduced in September 1990.
Introduce short-term commercial paper for the financing of the GPMB's crop purchases by end-December 1990.[4]	Observed; groundnut bills introduced in December 1990.

Source: IMF

[1] Quantitative performance criterion under the ESAF arrangement.

[2] Structural benchmark under the ESAF arrangement.

[3] Quantitative benchmark under the ESAF arrangement.

[4] Structural performance criterion under the ESAF arrangement.

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ANNEX H: NATIONAL ENVIRONMENTAL ACTION PLANS

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A. Summary

This Annex presents a general outline or model of what constitutes a National Environmental Action Plan (NEAP). NEAPs, of course, can take a variety of forms, depending upon the individual country. This Annex also summarizes the steps which must be taken to implement the NEAP -- a country's framework for environmental planning and management -- once it is approved. It should be remembered that there is no "model" NEAP and that what is presented here is illustrative.

The preparation of the NEAP is the responsibility of the national government. The NEAP should originate with, and be prepared by, appropriate agencies within the government, since its implementation will be satisfactory only if these agencies support the process. There are now over twenty countries in Africa which have either prepared, or are now preparing, NEAPs. What distinguishes the Gambian effort is that, to a greater extent than elsewhere, it is a Gambian exercise, rather than a donor-driven activity. Gambians have prepared the plan and, as a result, it is an expression of how they perceive the current state of their environment and how they plan to manage the issues and problems.

B. Definition and Objectives of the NEAP

A NEAP analyzes a country's environmental issues in a comprehensive, multisectoral framework and sets forth a long-term strategy for development that does not degrade the country's natural environment. In proposing practical remedial measures, the analysis considers cross-sectoral linkages that affect renewable and non-renewable resources. It also considers the effects on human activity, as well as the effects of such activity. Although the term NEAP often refers to a specific document formally designated as such, many other approaches can achieve the same objective of preparing a comprehensive environmental analysis and setting forth a long-term national public policy and investment strategy.

The NEAP examines the quality of the environment and the use of natural resources. It also assesses the economic and institutional issues associated with the management of these resources to enable sustainable development and the maintenance of human health and well-being. Based on the results of this analysis, the NEAP should set forth priorities and related policy recommendations in the following areas:

(1) Government and public awareness of environmental issues;

(2) A national strategy for environmental protection;

(3) Specific programs and investment projects to address priority problems;

(4) An information system for monitoring the state of the environment;

(5) The management of natural resources, particularly endangered species and habitants;

(6) The reversal of environmental degradation; and

(7) Protection of the public from environmental pollution and hazards.

A comprehensive NEAP would cover the following:

(1) A summary of the country's overall environmental situation relative to its development strategy. It should identify the relevant policies and legislation that provide a framework for addressing environmental issues.

(2) An analysis of major demographic, public health and safety, cultural heritage and other sociocultural and socioeconomic factors linked to the environment and to resource use. Basic information on these cross-sectoral items should be required as inputs for analyses of problems and proposed solutions.

(3) An analysis of the legal and institutional framework. An analysis of legal and institutional tools for dealing with the priority problems would address key strengths and weaknesses in such areas as the regulatory and administrative framework, training and experience of civil servants, enforcement capabilities, availability of technical specialists and of education and training opportunities within the country, commitment of government to the environment, activities of NGOs, and environmental awareness of private business and the general public.

(4) Analysis of major development activity and trends of economic growth, resource use, and conservation. This analysis should cover major sectors (e.g. agriculture, forestry, industry, transportation, energy, housing, infrastructure, education, health and social services, mining, parks and tourism), all with special reference to the environment. The analysis should also identify specific constraints

on future economic growth, including restrictions on land and water, reductions in human capital, shortages of arable land and water, limitations on availability of skilled personnel, depletion of forests, soils, energy and other natural resources and the effects of population growth.

(5) Analysis of key environmental and natural resource issues that threaten public health, social welfare, biological diversity and sustainable development. For each issue, an analysis should be made of such causal factors as population pressure, improper farming methods, forced and voluntary resettlement, improper management of forests, land and other resources, price distortions or other market failures, technical insufficiencies, inadequate education and training, and failure to have, or to enforce, pollution control measures. The relative importance of each issue should be determined in terms of its impact on sustainable development, based on quantitative analysis wherever possible.

(6) Need for natural resource information management. In addition to the basic information required for the analysis of cross-sectoral problems and solutions, a NEAP would require a systematic determination of the types of data to be gathered, maintained, updated, analyzed and disseminated. The data encompass a wide variety of information from many fields (e.g., legal and fiscal cadastral systems, environmental indicators, geographic data and health records). The data have an equally wide range of applications from food security and preparedness for responding to natural disasters to erosion control and the monitoring of endangered species. The data would be generated by a broad spectrum of techniques, ranging from door-to-door surveys to satellite imagery. The availability of data, difficulty of access and compilation, frequency of updating, and the cost of compilation and maintenance, are all important concerns for the NEAP.

(7) Strategy and recommendations for specific actions (macro, sectoral, project investment) to deal with each of the issues identified. Specific recommendations may be required for legislation and other regulatory measures on: management of land and other natural resources; economic policies that affect incentives for the private sector; pollution control policies and administration; population and migration policies; and sectoral investment

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priorities.

(8) Recommendation of an overall development strategy. This statement should indicate how environmental policy and investment strategies will affect the priority issues defined in the rest of the NEAP. The recommendations for the development strategy should be closely integrated with the specific recommendations for environmental protection and improvement. The recommendations should also complement those for resource management that the government believes will put the country on a path of sustainable development. In addition, the NEAP should identify a number of programs and projects for external donor financing which will support this development strategy.

(9) A work plan or matrix. This should indicate the specific steps or timetable for carrying out all recommended actions.

C. The Next Step: Preparing an Investment Program for NEAP Implementation

Once the NEAP document has been prepared with the consensus of all parties and has been accepted by government as the foundation for the strategy for environmental planning and management, the critical work begins. How to implement the NEAP and design a series of actions which address the issues identified during the analysis phase of the work is really the most complex part. The investment program must follow logically from the analysis contained in the NEAP, and the project actions identified should correspond to the types of actions broadly identified in the NEAP as necessary to begin tackling the priority issues.

The NEAP design process usually generates many project ideas, not all of which follow the strategy lines laid down in the NEAP. Given the cross-sectoral nature of the work and the input from many public sector sources, this can be expected. The initial stages of preparing the investment program consist of prioritizing the activities which will be proposed to the donor community for funding, and retaining those which really fit the strategy of the NEAP and address priority issues.

It is usually during this phase of the work that issues such as the review and reform of the legislative and regulatory framework for environmental management are addressed (including regulatory guidance for environmental impact assessments), and final decisions concerning the institutional framework for environmental management are taken. Work on the investment program provides the opportunity to take a realistic look at what can and

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cannot be achieved within a given time frame.

During the development of the investment program, there should be a focus on donor coordination to support the priorities identified by the host government. The NEAP, as approved, provides official guidance on those areas which the host government feels are priorities for action on the environmental front. Donors wishing to work in the environmental area in a given country should work within the framework established by the host government as a partner supporting those activities, sectors or objectives which interest them and in which they can provide specific expertise. Once a country has a NEAP, it is difficult for a donor to develop and successfully implement environment-related programs which do not respond to the issues as identified in the NEAP. Given the NEAP framework, coordinated action by the donor community is made easier. This can facilitate pooling of intellectual and financial resources for greater effectiveness of action. It can also ensure that the host government will not have to contend with a multitude of different programs with different objectives proposed for the same sector and addressing the same issues.

A donor roundtable is a necessary step to begin formalizing the level of support that the NEAP will attract. The roundtable, at which the NEAP will be discussed and the proposed investment program initially reviewed, will usually result in indications of interest from different donors for different actions proposed in the initial investment proposal. Once it is fairly certain which donors will be supportive and what areas interest them, projects and programs can be developed in coordination with the host government and along the broad policy directions outlined in the NEAP. For instance, the Gambia NEAP currently contains three major programs: Natural Resource Management, Environmental Health and Energy. While some donor projects, such as the proposed USAID Natural Resources Management Program, will focus on the natural resources area, other donors will cover the other areas, such as waste management, urban pollution, development of renewable energy sources, etc.

In this way, during the roundtable process and during the in-country negociations which follow as projects are designed, a donor coalition is created to support the NEAP. This coalition should be supported by regular in-country meetings among donors and between donors and the government agencies involved in the actions under the mantle of the NEAP. Given that the NEAP is a continuing governmental process for planning and implementing environmental management, there is a need for permanent dialogue on the success of the varying approaches taken to address the issues.

ANNEX I: OVERVIEW OF AVAILABLE RESOURCE-CONSERVING TECHNOLOGIES

ANNEX I: OVERVIEW OF AVAILABLE RESOURCE-CONSERVING TECHNOLOGIES

The purpose of this annex is to briefly review some of the technologies and practices that might be promoted by the proposed ANR program, particularly under the NGO component. This annex relies extensively on a review of resource-conserving agricultural practices that was done as part of the Sahel Sub-Regional Natural Resources Management Assessment (SSRA). The SSRA, which was sponsored by AID's Africa Bureau (the Office of Technical Resources and the Sahel Office), involved research in the Gambia and three other Sahelian Countries: Mali, Niger, and Senegal. The results of the assessment were published in Shaikh, et. al, Opportunities for Sustained Development: Successful Natural Resources Management in the Sahel, October 1988, 4 volumes. This annex also draws heavily on a publication by the Office of Technology Assessment, entitled Enhancing Agriculture in Africa (1988).

The SSRA study (Shaikh, et. al., volume III, prepared by Kjell Christophersen) attempted to carry out an economic analysis of several of the technologies discussed below, including contour ridges, windbreaks, and organic fertilizers. The study concluded, however, that the difficulty of measuring benefits made rigorous financial analysis of these interventions extremely complicated. In the projects that the SSRA team reviewed, they found few instances where efforts had been made to measure any increase in crop yields which might have resulted from the interventions. Part of the difficulty was that of assessing the short term impact of resource-conserving technologies, which are long-term in nature. Moreover, the study concluded, costs and benefits associated with these interventions are likely to be highly situation specific.

Compared to most agricultural operations, soil conservation, agroforestry, and pasture improvement are long-term investments. Only some of the technical interventions available produce immediate results (e.g. water retention dams that increase yields). The first benefits from fruit trees can be expected 3 to 5 years after planting. Fast growing exotic tree species (gmelina, neem, eucalyptus) can be harvested in 5 to 10 years. Indigenous forest species, such as Faiderbia albida (Acacia albida), may require 10 to 15 years to produce a return. A live fence, if managed properly, can become effective in 1 or 2 years. Windbreaks may begin to produce results in 3 to 4 years. The lag time between investment and realization of benefits is significant, particularly because circumstances may change in the interim so as to essentially negate any investment made by a farmer or community.

In promoting natural resource-conserving technologies, it

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will be necessary to take into account the need to address the near term basic needs of Gambian farmers. For example, the Gambia Forestry Project found that acceptance by villages of the woodlot concept was directly related to the number of fruit trees provided. The most successful Gambia Forestry Project woodlot was one comprised entirely of fruit trees, with fuelwood trees planted at the perimeter along the fence to provide wind break protection and to act eventually as a living fence. Similarly, the successful introduction of horticultural gardens has demonstrated the importance of interventions that provide direct benefits at the individual level. The use of interventions such as live fences could be closely linked with NGO programs to promote vegetable gardens.

A. Soil and Water Conservation Structures

The Gambia has had substantial experience in recent years with the construction of soil and water conservation structures. The USAID-supported Soil and Water Management Unit (SWMU) has been central to this effort. The SWMU publicizes its soil and water conservation services. It then responds to requests for help by villages to assist them in constructing saltwater retention dams, water retention dams, upland diversion and contour ridges, ravine check dams, and grassed waterways. Requests are funnelled to SWMU from the villages through District Agricultural Officers. After a reconnaissance of the district requesting assistance, the SWMU decides what villages are most in need of assistance and prioritizes the work to be done in the district. Village committees organize the physical work while the SWMU provides technical support and some assistance.

From 1985 to 1990 the SWMU rehabilitated a total of 780 hectares of lowland rice and installed upland conservation on 1,631 hectares. This effort had a direct impact on 78 villages and 20,600 people. In 1991, as a result of the improved capacity and training of the SWMU staff, 10,600 meters of dikes and 730 meters of concrete spillways have been installed in 29 villages and returned 314 hectares of lowland into rice production. In addition, 5,600 meters of contour bunds and 6 gully control structure were built which brought 180 hectares of uplands into production.

The types of soil and water conservation structures are described below:

1. Water Retention Structures

The Gambia has many long, narrow, flat bottom lands which, with sufficient and timely rainfall, sustain rice and vegetable production. Production on these lands can be increased during drier periods by constructing earth-filled dams across the drainage ways at key locations. These dams can reduce the

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velocity of runoff, and capture and retain water and topsoil. Moreover, the retention of water can increase infiltration and recharge the aquifer below the dam. The SWMU has been able, with water retention structures, to increase lowland rice yields from 1,317 to 2,750 kilograms per hectare (108%).

An economic analysis of water retention dams for rice culture was completed in 1985 (Evaluation of the Gambia Soil and Water Management Project, USAID, December 1987). This analysis calculated an internal rate of return on eight water retention structures (covering 111 hectares) to be 42 percent. Even when the estimated benefits were reduced by 10 and 20 percent, the IRR remained high, at 34 and 26 percent, respectively.

2. Anti-salinity Barriers

In the western half of The Gambia, small watersheds intersect the tidal flats of the Gambia River. Salt water extends for 250 kilometers up the river with the rising tides. With declining rainfall and extended dry periods, salt water has intruded into swamps that were previously used for rice production. Over the years, dozens of villages have lost their fertile rice fields to salt intrusion. The construction of small earthen embankments or dikes across the flood plain can prevent saline water from moving into cropped land at high tide, retain fresh water to leach salt out of the soils behind the barrier, and dilute and flush salt during heavy rains. Infiltration of rainwater raises the water table and flushes salts from the soils.

The Soil and Water Management Unit, supported by USAID's Soil and Water Management Project, has substantial experience in the construction of anti-salinity barriers. Anti-salinity barriers constructed by the SWMU have enabled farmers to reclaim lowlands that have been out of production for many years. Dikes must, however, be combined with upland erosion control. The installation of anti-salinity dikes without upland erosion control is not sustainable, because silt rapidly fills up the fresh water reservoir.

3. Waterways and Water Diversions

Waterways are either natural or constructed channels that carry excess water. Natural waterways are usually lined with grasses which prevent them from becoming gullies and reduce erosion. Diversions are constructed in fields to reduce water damage and flooding and to channel run-off to other fields or to areas where it can be used for other purposes. Both of these water management tools are used to control water on fields and to reduce soil erosion and water damage to crops.

During the rainy season many villages are flooded regularly

by runoff from croplands. The problem is exacerbated by tracks or paths leading to villages that serve to collect and channel runoff. This problem can be addressed by the construction of graded swales or grassed waterways that prevent erosion and decrease flooding by intercepting the water and conveying it around villages.

4. Check Dams

Gullies are formed when high velocity rain water run-off cuts deep fissures in the land profile. Rock check dams and grassed waterways can be used to correct and prevent gully erosion. A grass lining reduces erosion by lowering water velocity over the soil surface and by binding soil particles with roots. In The Gambia, a species of vetiver grass has been used successfully to control gully erosion and water way diversions. This grass is unpalatable to animals during the dry season (when grazing pressure would be greatest). Further, it does not spread easily, and thus poses little danger of becoming a weed.

In many cases, a series of channel protection dams might need to be constructed along a watershed. Such an effort may surpass the abilities of a single village and therefore require broader community efforts.

5. Contour Dikes and Ridges

During heavy rains, sheet erosion removes topsoil and nutrients from upland fields. Adequate infiltration of water for crops and forage is not possible with rapid runoff. The construction of contour dikes and ridges will protect soil on such slopes. Small dikes or ridges (also called berms or bunds) are built along existing contours. The spacing between the dikes depends on the steepness of the slope -- the steeper the slope, the narrower the distance between the dikes. The dikes slow runoff, retain top soil, and increase infiltration of water. Generally, the areas immediately above and below the barrier store more than normal amounts of moisture.

When rainfall is intense, contour dikes can convey excess water at a nonerosive rate into a wooded area or an uncropped drainage way that has been stabilized with permanent vegetation. The contour dikes can also serve as guides for farmers practicing contour plowing. Finally, as soil builds up behind the dike, due to erosion, a terrace effect is created and the slope gradient is reduced. The SWMU has experimented with the use of Andropogon gayanus and Vetiveria nigritana to stabilize soil on contour dikes and fixed berms (bunds).

Contour ridges will cause yields to increase immediately. But this will be only a temporary benefit, since soil nutrients

then become the limiting factor, rather than water. Contour ridges, themselves, do not enhance soil fertility. Their benefits come from increased soil accumulation and water retention in the soil. Thus, contour ridging and other physical interventions must be combined with interventions which improve soil fertility and nutrient availability, micro-climates, and physical soil properties over the long run.

The Soil and Water Management Unit has obtained good results through the installation of berms and contour farming, as well as by providing farmers with advice on improved agricultural practices. In the Foni area, where erosion and siltation were causing deterioration in upland agricultural areas and encroachment on lowland rice fields, significant results have been obtained by the unit. The construction of bunds, however, affects water availability in adjacent plots. Therefore, cooperative arrangements with other farmers are necessary.

B. Agroforestry

There are three broad types of forestry interventions:

1. Agroforestry, in which forestry is combined with agriculture such that trees enhance, rather than displace, crop and/or livestock production;

2. Community forestry (also called social forestry) which mobilizes large numbers of people to plant and protect trees on commonly owned or private lands, with the aim of producing wood or other products, principally for village use.

3. Plantation forestry, where trees are grown commercially.

The principal focus of the ANR Program will be on promoting agroforestry. This will include: (a) support for the introduction of multipurpose (fuel, fodder and poles) tree and shrub species into the cropping system; (b) planting of fruit trees; and (c) the promotion of windbreaks, boundary plantations, and live fences. Particular emphasis would be to get villagers to plant fuelwood trees at locations that do not compete with crops. This would include planting trees:

- Along field boundaries to serve as a demarcation of plots;

- Along the edge of waterways and drains to stabilize soil;

- Along roads and lanes to protect them from wind and

water erosion;

- At the top of ridges in fields (where productivity is likely to be low) to control wind erosion; and

- In a belt around the village or compound to increase shade and provide wind protection.

Following upon the experience of the GTZ in the Gambia, the ANR program may also become involved in community forestry efforts. As discussed below, block plantations will not be a priority of the proposed ANR Program.

1. Multi-purpose Tree and Shrub Species

The incorporation of multi-purpose trees and shrubs into the farming system can improve crop and livestock production in a number of ways. Leaves from trees and shrubs increase soil organic matter as they decompose. This organic matter improves soil structure, soil fertility, and soil water-retention capacity. The deeper root system of trees enables them to capture nutrients that have leached down from the topsoil, and to make the nutrients available to annual crops. Trees can reduce evapotranspiration due to wind, lower soil temperature (thus reducing the rate of decomposition of organic matter), reduce the impact of raindrops on the soil, control runoff, and improve water infiltration into the soil. Further, leguminous trees and shrubs can add nitrogen to the soils. Finally, the fruits and leaves of multi-purpose trees can serve as forage for livestock while the trunks and branches provide wood for fuel, poles, and other uses.

a. Field Trees

Widely spaced interplanting of trees, particularly multi-purpose trees, can offer benefits to the crops grown between the trees. Common species used as field trees are Faiderbia albida (Acacia albida, abbreviated throughout as F. albida). F. albida is a fast-growing, leguminous tree which is native to much of Africa. It has a number of characteristics that make it ideal for agroforestry interventions. F. albida sheds its pods and leaves at the onset of the rainy season. This mulch enriches the topsoil, benefitting both crops and livestock. At the same time, the defoliated canopy decreases the shading of the understory crop during the critical cropping season and decreases the competition for nutrients and water. At the same time the trees do provide enough shade to reduce evapotranspiration (at a density of only 20 trees per hectare, F. albida will reduce evapotranspiration in the dry season by up to 50 percent). Further, F. albida's deep (20 meter) tap root enables it to draw nutrients from beyond the reach of other plants. This, combined

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with its ability to fix nitrogen, significantly benefits crop growth. Each F. albida tree provides approximately 2 kilograms of nitrogen to the crops around it. Research has indicated that intercropping with F. albida can increase millet and sorghum yields by up to 150 percent. F. albida can be an important source of fuelwood (up to a cubic meter of fuelwood per ha. per year) and the pods and leaves provide fodder during the dry season (when annual grasses have disappeared). Finally, livestock congregate under the shade of the trees, and their manure further enriches the soil.

The maintenance of field trees consists of weeding around each tree and protecting them until their height puts their leaves above the reach of goats. The benefits of field trees are long-term. It may take 10 years before trees are large enough to have a significant effect on crop yields, but the benefits continue for the remaining life of the tree.

Karch in a financial analysis of alternative agroforestry practices in Senegal (Karch, 1991) calculated a benefit cost ratio of 4.32 and an internal rate of return of over 50 percent for field trees. [1]

b. Alley cropping

Alley cropping generally refers to crop production between rows of nitrogen fixing trees. Under alley cropping, lines of trees or shrubs are grown in hedge rows and managed in such a way

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[1] Karch, G. Edward, "Comparison of Agroforestry Practices in Senegal Using Financial Analysis", 1991. Karch compared a number of agroforestry practices using varying assumptions. The figures used here are from Table 5, p. 18. These calculations assume: (1) No project subsidy to the farmer for tree planting; (2) an opportunity cost of labor at zero; and (3) a discount rate of 25 percent. The calculations made were:

- Net Present Value - the sum of the discounted costs and the discounted returns. A positive number indicates that the farmer makes money, assuming that the assumptions are true.

- Benefit Cost Ratio (BCR) - the discounted benefits divided by the discounted costs. If the BCR is greater than 1, the farmer will make money (if the assumptions are true).

- Internal Rate of Return (IRR) - the discount rate at which discounted costs equal discounted returns. It is also the discount rate which, if used, would provide a net present value of 0 or a benefit cost ratio of 1 (again, if the assumptions are true).

Only the BCR and the IRR are cited in this text.

as to minimize competition with the associated crop. They provide a mechanism for nutrient recycling, as the leaves from the nitrogen-fixing tree or bush are periodically pruned to provide a source of mulch or green manure. Depending upon the species used, the hedge row can serve as a source of poles, fuelwood and fodder.

Alley cropping has been the subject of research in The Gambia for several years, particularly focusing on Gliricidia sepium, Leucaena leucephala, and Cassia siamea Gliricidia and Leucaena are nitrogen fixers that produce high quality fodder. Cassia siamea, though not a nitrogen fixer, has a deep rooting system which exploits the soil at a different depth than the annual crop.

Research in Zinguinchor (Senegal) has demonstrated a positive response by millet and maize crops to twice yearly mulching with foliage from Gliricidia and Leucaena. Research near Bambey, where rainfall is much less, had positive response from lines or very wide alleys using Acadia senegal. Alley cropping research has also been going on at the research station in Kaolack (Senegal). Some projects and NGOs (e.g. Action Aid) have already started using alley cropping.

Alley cropping, however, is more labor intensive than traditional cropping methods, and requires considerable changes in farming practices. Farmers are often reluctant to try alley cropping because the space needed by the trees clearly reduces the amount of cropland available, and the benefits in terms of improved fertility (which should compensate for the area sacrificed) are not intuitively obvious. Finally, alley cropping is also more applicable in less arid regions. More research is needed to identify suitable species for alley cropping in non-irrigated semi-arid conditions, where water competition between trees and plants would be a severe constraint.

2. Block Plantations

As noted above, the ANR Program will not get involved in supporting plantation forestry interventions. USAID's experience with the Gambia Forestry Project (635-0205), identified a number of social and institutional constraints to plantation forestry. The Gambia Forestry Project suffered from the village perception that the woodlots created were "government woodlots". The villagers therefore did not protect the woodlots from brush fires and grazing animals. Conflicts with other farming activities also limited the availability of labor to weed the newly planted trees in a timely fashion. The resulting presence of large volumes of dry vegetation during the dry season increased the damage done by uncontrolled brush fires. The Gambia Forestry Project also found that the cost of publicly managed plantations is insupportable. Firewood and poles harvested from natural

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stands are less expensive to produce than those from plantation.

The economic justification for block plantations is very sensitive to the discount rate and the survival rate. One problem experienced with the Gambia Forestry Project was that the trees had to be planted at the beginning of the rainy season, which was the period of greatest labor scarcity (as farmers were planting their crops at the same time). Consequently many farmers failed to plant the trees in a timely manner and this greatly increased the failure rate of germination. The need for replanting greatly increased the costs of the intervention.

In his financial analysis of agroforestry practices, Karch (Karch, 1991) derived a benefit cost ratio of 1.63 and an internal rate of return of 32 percent for block plantations. This is relatively low compared to other practices analyzed, and was attributed by Karch to the long time required to wait before receiving the benefits.

3. Fruit and Nut trees

With respect to the propagation of fruit and nut trees, the proposed ANR project can benefit from the experience of the Methodist Mission in Brikama. This Mission has produced substantial quantities of seedlings for mangos, cashews, and sweet grapefruit. Mango and cashew trees will begin producing in the third year and sweet grapefruit in the fifth year. The Mission's nurseries have also propagated Saloum plum (Sandidas mombin) and Sweety Sop (Spondidas purpera), which are both relatively drought resistant and appreciated by farmers.

Trees are often grown in rows. While fruit trees provide no fodder benefits, the field can be grazed after the trees are above the reach of goats. A disadvantage of fruit trees is that they are more likely than leguminous multi-purpose trees to compete with field crops. In his financial analysis, Karch calculated a benefit cost ratio (BCR) of 7.39 and an IRR of over 50 percent for fruit orchards, and a BCR of 3.52 and an IRR of over 50 percent for nut orchards. These rates were high due to the high value of the products. However, fruit and nut trees require a much higher level of inputs and skill to manage than is usually demanded of farmers. Moreover, the high return is dependent on a high market price for a single product.

4. Windbreaks, Live Fences, and Hedges

a. Windbreaks

Windbreaks improve agricultural productivity by:

o Reducing sand blasting of young plants,

- Improving stand establishment, and decreasing the time and energy devoted to replanting;

- Increasing humidity and decreasing wind speed and temperature, thus allowing more efficient transpiration and crop water use. This reduces crop demand on stored water and allows crops to withstand longer drought periods;

- Protecting crops from storm winds and minimizing lodging.

The best data on the benefits from windbreaks are from the CARE-funded Maggia Valley Windbreak Project in Niger. That project has, since 1975, established over 350 kilometers of windbreaks to protect some 3,000 hectares of rainfed millet and sorghum. Subsequent evaluations indicated that crop yields increased by between 15 and 23 percent as a result of the windbreaks. On-farm research in the Maggia Valley indicates that a single line of neem Azadirachta indica can increase millet yields by up to 30 percent, while providing additional farm income through the sale of poles and firewood.

Windbreaks have limitations. They must be properly sited (oriented perpendicular to the prevailing winds) and require the cooperation of groups of farmers. They require high labor inputs for planting and some continued protection from livestock in the early years. In the Maggia Project, for example, villagers had to agree to forego grazing on the land for three years, in order to permit the branches to grow out of the reach of livestock. This was enforced by guardians paid for with project funds. Another problem is the ownership of the trees. In the absence of clear tree tenure, conflicts can arise over the distribution of wood products harvested from them. Trees also provide shelter and nesting sites for grain eating birds. Further, some tree and shrub species require groundwater at levels that exceed the windbreak's water-conserving benefits. Finally, the benefits of windbreaks are longer-term; their impact is not immediately visible, but it increases as the trees grow. This slow realization of benefits discourages some farmers.

Despite these limitations, Karch, in his comparative analysis of agroforestry practices, calculated a benefit cost ratio of 32.65 for windbreaks, by far the highest BCR of any of the options examined.

b. Live Fences and Hedges

Living fences are a single row of trees used to provide fence posts or a barrier. They may be cut above fence height for fuelwood, poles and fodder. Hedges are defined as plants in one

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or more rows which form a continuous barrier and are regularly cut back to form a dense interwoven mass of branches and foliage. A common species used for live fences is Prosopis juliflora, which provides fuelwood and poles. This can be mixed with Guiera senegalensis. Once well established, the thorny branches of P. juliflora provide an effective barrier against livestock.

Live fences and hedges can reduce wind erosion and evapotranspiration. They also have the potential of adding organic matter and nutrients to the soil and providing fuelwood and fodder. However, they may also compete somewhat with neighboring crops. Living fences and hedges can be used to demarcate fields, particularly intensively cultivated vegetable gardens. The principal benefit of fences and hedges is, of course, as a barrier to protect crops from livestock. Karch calculated a benefit cost ratio of 2.54 and an IRR of over 50 percent.

To the extent that barriers need to be created for demarcation or crop protection purposes, live fences are preferable to metal fences (which are generally beyond the means of most farmers), or dead wood or cut thorn bush fences (which must be maintained and are becoming increasingly scarce).

c. Border and Roadside Planting

This is perhaps one of the easiest social forestry practices to carry out. The plantings can be used to demarcate fields. Roadside plantings provide shade, improved community ambience, and reduce road maintenance costs.

C. Improved Agronomic Practices

On slopes with a slight gradient, agronomic practices alone are often sufficient to stabilize soil. Practices include contour planting, water harvesting micro-catchments, and tied ridges. In most years, these practices will provide only slight yield increases. However, during drought years, their impact on yields is much more pronounced. For example, crop yields from a water harvesting scheme in Burkina Faso produced yields similar to those from traditional farming in a year when rainfall was adequate. The following drought year, however, the yields on fields using the technology were 48 percent greater than those on neighboring fields.

1. Contour Planting

One common agronomic practice is tillage and seeding along the contour, rather than with the slope. Contour tillage creates a series of small barriers to water flow, reducing velocity and promoting infiltration (and therefore increasing the water

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available for plant growth).

2. Micro-catchments and Tied Ridges

Micro-catchments can be constructed, often in the form of a "V" or half moon) to harvest water. Tied ridges are a variation of the micro-catchment principle. Tied ridges are a method of field plowing using a ridging plow with a tie attachment to make crossties (small barriers) to keep water from running down the rows. The tied ridges create closed micro-basins of a few meters in length. The cross ties are lower than the ridges, enabling them to act as spillways.

This technology is most applicable in arid environments because in moister areas excessive water runoff can damage the ridges and cross-ties. Tied ridges can have particular benefits in complementing the use of fertilizer, which, in the absence of sufficient moisture, can damage crops.

D. Improving Soil Fertility through Manuring, Fertilizer Use, and Increased Fallow

In recent years the Department of Agricultural Research has pursued a number of themes to improve management of soil fertility inputs. Work on regenerating soils through natural means has concentrated on improving the forage component of fallow and incorporating trees into the cropping system. Research has also been carried out on soil amendments. For example, while results indicate that rock phosphate and single super phosphate provide significant yield increases for up to three years after application, their application is uneconomical at current phosphate prices.

1. Increased Fallow

Because of population pressure, most of the agricultural land in The Gambia is essentially under permanent cultivation. Increasing fallowing, therefore, is not a promising approach.

2. Manure

Manuring involves the recycling of organic material, so that the nutrients in animal and plant wastes are used to improve soil fertility. Manuring is an important means of transferring nutrients from pasture land to crop land and of recapturing some of the nutrients taken by animals from the field. The presence of organic matter has a number of benefits for the soil, including increasing its water holding ability, preventing soil hardening, increasing the supply of nutrients, and providing a

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favorable environment for microbial activity. Research conducted by the Mixed Farming Project concluded that manure represents a major portion of available soil nutrients in the Gambia. Calculations indicate that the total organic waste per animal is equal to two bags of N-P-K fertilizer per year.

Nevertheless, the use of manure in the Gambia is constrained by a number of factors:

(1) Constraints on availability due to geographic location. The tethering of livestock is generally restricted to fields near the compound in order to guard animals from predators and theft. At the same time, lack of water sources restricts the distribution of livestock.

(2) Constraints due to the concentration of the distribution of the manure. The purchase of cattle does not guarantee benefit from the manure. Herds in the Gambia are often composed of cattle belonging to several owners, but only the owner appointed as herd manager makes decisions on which fields to manure and for how long. Generally, he would ensure that the needs of his land are fully met before those of others' land. Developing a system for the more optimal distribution of manure is, therefore, important for maximizing the overall economic benefits of manure.

(3) Constraints due to high rates of nutrient loss in the application. One cause of nutrient loss is that manure is frequently left on the field throughout the dry season and is often burned before being incorporated into the soil.

(4) The management and transportation of manure can be labor intensive. The nutrient requirements of crops can be high (from 5 to 20 tons of fresh manure per hectare). For this reason, manuring is more economically viable for vegetable plots and home gardens.

3. Chemical Fertilizers

Chemical fertilizer can clearly have a strong positive impact of soil fertility. However, its use is limited by its cost and by the risk it entails. When rainfall is insufficient during the time of application, there is a high risk of crop damage or even total crop failure when chemical fertilizers are used. Because of the variability of rainfall in arid zones, chemical fertilizer carries an unacceptable level of risk, despite an apparently high rate of return.

4. Mulching

The use of mulch, of twigs and small branches left over from the cutting of poles, has a number of benefits. Mulch encourages retention of soil, organic matter and seeds, lowers soil temperature, protects against the impact of raindrops, increases the absorption of water into the soil and attracts termites, which aerate the soil. In a research experiment in Guesseboli, Niger, under the USAID-funded Forestry and Land Use Planning Project, twig mulched plots yielded 5 times as much as non-mulched plots.

E. Controlled Burning and Firebreaks

Burning residual vegetation during the dry season has been an accepted cultural practice for generations. Bush fires are started by hunters, farmers who do not have the resources to plow thick vegetation, and herders who wish to generate the green offshoots which grow after burning (burning draws water from lower soil layers to the soil surface, promoting new grass growth). Anecdotal evidence suggests that the area burned annually, and the intensity of the burning have increased in recent decades.

While burning produces short-term benefits, in the long run it is detrimental to range and forest resources. Bush fires not only destroy annual and perennial grasses, but also eventually the soil humus upon which the regeneration of grasses depends. Extensive burning reduces the biomass needed for livestock during the dry season. It also contributes to the destruction of the forest cover, and hampers forest regeneration.

Experiments have shown that control of burning allows a significant increase in range carrying capacity during the dry season. However, since the ownership of range and forest is not clearly demarcated, the benefits from the protection of this land do not accrue solely to individuals and they thus have little incentive to control fires. The institutional mechanisms to control fires exist, as evidence by the fact that planted croplands suffer relatively little from fires. In areas where farmers have responsibility for the land, bush fires are greatly reduced.

One technique of fire protection and control has been the clearing of firebreaks, often 30-50 meter wide belts along forest or range boundaries. The land used for such a firebreak can be used for multiple purposes, such as agricultural production, growing of fruit trees, managed grazing, forage and thatch cutting.

Another method, which was recently employed in the UNDP-

funded Rangeland and Water Development Project in Dankunku and Niamina West districts, centers on farmers levying fines on members of the community, or outsiders, who purposely burn. In one case, the farmers in Dankunku apprehended an individual and imposed a fine of D5000, the equivalent of two cows. The proceeds were used to repair the damage.

F. Integrated Forage Crop Production and Pasture Management Schemes

The recent experience of the UNDP Project in Dankunku (which in turn builds upon the experience of the USAID-funded Mixed Farming and Resource Development Project) can serve as a model for improving livestock production and conserving range resources. Under this project, the Department of Livestock supported the creation of Livestock Owners Associations, which developed, with DLS assistance livestock and rangeland management plans.

The Dankunku project charges a grazing fee of 3 dalasis per head per year. These fees are used for "improving water supplies, fencing pastures, improving pastures with forage and tree species, marketing of dairy products, and improvements in animal health. The project also emphasizes the development of small, practical industries associated with livestock production. These include the use of milk products and animal by-products. The project has filled the demand for yogurt in the immediate project area. During the rainy season, excess production is sold in Banjul.

1. Controlled Grazing on Degraded Rangelands

Controlling grazing on rangelands is important to ensure its long-term sustainability. With controls on grazing, it is possible to improve the rangelands by transplanting and reseeding drought resistent grasses and legumes which are highly nutritious. A significant constraint on controlling grazing is the "commons" nature of rangeland. The proposed ANR Project will support programs aimed at having the GOTG lease land to grazing associations, thus encouraging them to more carefully manage the land resource.

A deferred grazing experiment was conducted under the USAID Mixed Farming Project in the mid-1980s. In spite of a favorable beginning, the ultimate results were mixed. The deferred grazing schemes suffered from severe management problems and were plagued by uncontrolled brush fires. Further, water sources had not been provided, which introduced additional herding and other labor costs in getting the cattle to and from watering points.

The deferred grazing approach was continued under the UNDP's project in Dankunku. The UNDP effort built upon the lessons of the Mixed Farming Project. For example, boreholes were drilled on the deferred grazing sites to eliminate the labor costs involved in bringing water to the pastures. Second, the Dankunku common grazing areas were much larger, e.g. 800 hectares as opposed to 20 hectares in the Mixed Farming Project. Finally, the pastures were grazed during both the rainy season and dry season, involving an entirely different approach on the part of villagers to land management. From the end of March or April to June, village herds are taken to the pasture reserve in the morning and returned to the village in the evening. Further, selected species of trees have been planted within the pasture to provide forage for cattle. This approach appears to approximate a village grazing commons.

2. Access to Water for Livestock

The geographic distribution of water points affects grazing pressure on the rangeland. Land closest to water points is the most heavily grazed, while range further away is under utilized. Similarly, access of livestock to river banks is increasingly constrained by the expansion of crops along the banks. This is particularly important in the eastern third of the country, where the banks of the river are steep.

Both the Gambia Mixed Farming Project and the UNDP Dankunku project involved the construction of water points. The Gambia Mixed Farming Project also constructed livestock access ways to the Gambia River, thus reducing herder/farmer conflict and curbing erosion along the river banks. The construction of access ways involved the furnishing of shovels, pickaxes, and cement by the project. The project also paid for the hauling of sand and rocks to the site. The livestock owners furnished all of the labor.

3. Fodder Banks

The difficulty of feeding livestock is greatest during the dry season, when fodder is scarce and of poor quality. Cattle commonly lose 15 percent of their body weight before the rains return, milk yields and reproductive performance drop, and mortality rises. An approach to addressing this that was developed by the International Livestock Center for Africa (ILCA) is the use of "fodder banks", of forage legumes that are cultivated and partially fertilized by the animals themselves. Large numbers of animals are crowded onto the 2 - 4 hectare fodder bank areas at the start of the rains. They graze the remaining vegetation and their manure fertilizes it. The fodder bank is then planted with legumes and fertilized. By the end of

the rainy season, such fodder banks can yield 4 to 6 tons of dry matter per hectare, with a crude protein content of at least 13 percent. These are grazed by the animals periodically during the dry season, providing high quality feed at a time where only low quality forage would otherwise be available.

4. Utilization of Crop Residues

Some 60 percent of nutritional requirements for livestock comes from rangelands. The remainder comes from crop residues. Farmers need assistance in how to store crop residues. The Gambia Mixed Farming Project promoted the better use of crop residues, for example maize and sorghum stovers, rice straw and groundnut hay, through improved harvesting and storage. The use of crop residues is particularly important during the critical dry season, where animals experience serious weight loss and high mortality. One annual scheme, for example, could involve: (1) the grazing of rangelands from June through October; (2) grazing on rangelands and harvested croplands from November through January; (3) feeding the animals lower quality farm crop residues (maize and sorghum stovers and rice straw) from March through mid-April; and (4) grazing on deferred pastures until the start of the rains in late June or early July, whereupon the cycle starts again.

G. Summary

The above technologies are illustrative. At the beginning of the ANR Program, a comprehensive review of existing technology will be completed. The objective of this review will be to identify those technologies that are appropriate for widespread dissemination. Where it appears that additional research will be required, discussions will be held with the appropriate GOTG agencies to get their support for research to address the need. The ANR Program will not, however, conduct the required research itself. This responsibility should rest with the GOTG.

ANNEX J: THE FORESTRY SECTOR

ANNEX J: FORESTRY ANNEX

I. INTRODUCTION

The Forestry Department is one of a number of governmental departments and non-governmental entities that will be involved in the Agriculture and Natural Resources (ANR) Support Project. This annex attempts to:

- Describe the state of the forest resource, in order to provide a background for those that will ultimately implement the ANR Program;
- Describe the institutional capacity of the Forestry Department, including strengths, weaknesses, areas of contribution to the ANR Program, and needs (particularly in terms of training), that can further enhance the role of the Department and its collaborators; and
- Provide information on past and present projects in the forestry sector that provide the experience and orientation for activities proposed under the ANR Program.

The ANR Project Assistance Initial Proposal (PAIP) identified both general and specific constraints to natural resources management in The Gambia. Certain of these bear a more direct relationship to the forestry sector than others. Nonetheless, all constraints influence forestry to some extent.

The Gambia's high population growth rate has led to an increase in the demand for forest products, such as fuelwood and construction timber. The current rate of fuelwood consumption is higher than the regeneration rate of natural forest remaining in The Gambia. Timber imports from the sub-region, especially Guinea, already account for upwards of 90 percent of The Gambia's timber needs.

In addition, the steady decline in rainfall throughout Sahelian Africa in recent years has forced adjustments in practices and attitudes. Technologies have been identified that allow for increases in the value of natural resource products in the face of declining precipitation. Gambian farmers have demonstrated a capacity to adopt such technologies, as evidenced by the adoption of short-duration, early millet varieties. Implications for forestry can be found in the early, positive indicators from the pilot Community Forest Management projects.

The PAIP identified the following as specific constraints that would be addressed under the ANR program.

A. Public Sector Policies that Hinder Sustainable Natural Resources Management

USAID concluded from its PAIP review that institutional, legal, and financial constraints effectively discourage local communities from using natural resources in a rational and sustainable manner. In addition to forests, range resources and overall biodiversity are negatively affected.

In this Annex, Section III "Institutional Setting", Section IV "Past and Present Activities" and Section VI "Licenses and Fees" directly address various public sector policies that impinge on sustainable forest management. These include budgeting constraints, legal restrictions to community-based resource management, and inadequate fees and fee collection systems.

B. Limited Capacity to Extend Available Technologies to the Rural Population

The limited capacity in The Gambia for dissemination of agricultural and natural resources technologies applies primarily to the GOTG, which has limited budgetary resources and strict hiring practices imposed through structural adjustment. NGOs, with more financial resources and often better paid and better trained human resources, have, in many areas of The Gambia, developed strong links to village organizations and have effectively disseminated natural resource technologies to the rural sector.

Section III, "Institutional Setting", examines the constraints facing the GOTG to first acquire, through training, and to subsequently extend in rural areas, those evolving technologies that could improve forest management practices. Section V "NGOs'-Role in ANR and the Forestry Sector" examines some of the common problem areas shared by the GOTG and NGOs, especially in terms of technical resources, and identifies opportunities for linkages between the public and private sectors to work in forestry interventions.

C. Inadequate Information Base for Natural Resource Policy Formulation

The ecological and socio-cultural systems in The Gambia are very complex, and their dynamics are not adequately understood. The traditional land use systems developed generations ago, at a time when populations were low and forest and pasture lands were abundant. At present, there exists a very limited capacity, at

both the national and the local levels, to analyze and monitor the status of the natural resource base and resource use.

As a result of this lack of information, the seriousness and scope of environmental degradation are not fully appreciated by the government and donors. This lack of knowledge can cause decision makers to underestimate the long-term implications of their actions (e.g., deforestation) or to opt for short-term gains, even though the long-term implications are negative.

The information gathering and environmental monitoring processes initiated with the preparation of the Gambia Environmental Action Plan (GEAP) will be instrumental in increasing the knowledge base on natural resources use in The Gambia. The GEAP has underlined the need for a better understanding of the dynamics of the natural resources base, as well as for stronger analytical capacity to understand the forces at play, in order to ensure that policies developed are more realistic and effective.

Although this particular constraint is less directly a forestry problem than a general natural resources problem, Section III "Institutional Setting" and in particular the training sub-section, outline the kind of training to be offered to the Forestry Department through the ANR Support Project. Better trained foresters will be able to provide more effective information to both the Forestry Department and the Environment Unit of MNRE, where a comprehensive organization of natural resources information will be undertaken.

D. Failure of the Government to Most Effectively Employ Its Limited Resources

This particular constraint is largely of a budgetary nature within the Ministry, although the ANR Program addresses it specifically for the Forestry Department. The proposed activities under ANR are changes to the fee structure for timber products, and a review of the methods employed to collect forestry fees and any related penalties for forest resources abuse.

Section IV "Past and Present Activities" details ongoing projects that are revenues earners for the government through the Forestry Department. Section VI "Licenses and Fees" provides information on the current fee structure, and provides alternatives supported by the ANR Support Project to improve these revenue earning mechanisms. Section VII "Forest Sector Conditionalities" gives detailed information on conditionalities under the Non-Project Assistance component of the ANR Program that aim to redirect revenues earned from the above mentioned sources back into special accounts at the Department level.

An additional constraint not clearly laid out in the PAIP is

that of the forest resource itself. Section I of this Annex, "Overview of the Forest Resource", provides the natural setting that fuels the need for actions to address the other constraints identified.

II. OVERVIEW OF THE FOREST RESOURCE

A. Forest Areas and Trends

The forest resources of The Gambia have been declining at a rapid and likely accelerating rate over the last forty years. A 1981 forest inventory confirmed a number of alarming changes and trends. Table 1 gives the overall breakdown of forest cover by various forest classes.

TABLE 1: Evaluation of the National Forest Inventory of The Gambia, 1983

FOREST CLASS	TOTAL AREA
Closed woodland (including plantations)	20,900 ha
Open woodland	62,700 ha
High mangrove	15,000 ha
Low mangrove	51,900 ha
Woodland upland crops	18,000 ha
Gallery forest	7,100 ha
Tree and shrub savanna	347,000 ha
Fallow land	102,100 ha
Upland crops	274,100 ha
Swamps - cultivated	33,500 ha
Swamps - uncultivated	70,700 ha
Barren flats	21,800 ha
Water surface	74,500 ha
Towns and villages	14,700 ha

Table 2 presents a breakdown focused on forest cover. Based on those forest classes presented in Table 2, it appears that 17 percent of the total land area of The Gambia had at least 10 percent (175,000 ha) tree cover in 1980.

Table 2: Area in Tree Cover

FOREST CLASS	TOTAL AREA
Closed woodland (including plantations)	20,900 ha
Open woodland	62,700 ha
High mangrove	15,000 ha
Low mangrove	51,900 ha
Woodland upland crops	18,000 ha
Gallery forest	7,100 ha
TOTAL	175,000 ha
TOTAL LAND AREA OF THE GAMBIA (10,400 km^2)	1,040,000 ha

Based on these figures, more or less closed and continuous forest areas ("Closed woodland", "High mangrove" and "Gallery forests") constitute only 4 percent, or 43,000 ha, of total land area[1].

Consistent time series of the various land-use classes are not available. However, the fragmentary data indicate a drastic reduction and degradation of the forests of The Gambia. The following information illustrates alarming trends:

- Between 1946 and 1968 "closed and woodland savanna" (which for purposes of comparison will be considered to approximate the "closed woodland", "high mangrove" and "gallery forest" classes above) decreased from approximately 60 percent to 8 percent of the total land

[1]The "Tree and shrub savanna" and "Fallow land" classes have been counted in some calculations toward total forest cover. However, the 1980 Inventory defined these classes as "Tree and shrub vegetation on freely drained soils with less than 10 percent tree cover or tree heights less than 11 meters" (emphasis added) and "with indications of previous cultivation". Thus, counting these relatively unforested classes as forest cover would add 449,000 ha, or 43 percent, to the above total.

area (FAO, 1991). Extrapolating from 1980 inventory information, this percentage is probably closer to 5 percent today.

- "High mangrove" area was halved between 1956 and 1980, declining from 30,000 to 15,000 ha, due to illegal cutting and exports, possibly exacerbated by disease (FAO, 1991).

- Overall forest quality and cover is degrading, without necessarily showing a decline in total area. For example, "closed woodland" (greater than 50 percent canopy) deteriorated into "open woodland" (less than 50 percent canopy) by 67 percent between 1972 and 1980, and an by additional 35 percent between 1980 and 1988 (FAO, 1991).

Contained in these totals are the 66 official Forest Parks (Reserves) of The Gambia. The total land area covered by these parks is 34,600 ha, or 3 percent of the total land are of the country. Of these, 34 Forest Parks, totalling 22,240 ha, are considered productive forest. Thus, a substantial portion of the remaining forests in The Gambia are in Forest Parks.

The main factors contributing to natural forest decline are human activities, including brush fires, legal and illegal felling, land clearing for agriculture, and over-grazing. These factors have been exacerbated by years of persistent drought. In general, the forest continues to be considered a free good, and exploitation proceeds at an untenable pace.

B. Economic Importance

The forestry sector provides for approximately 85 percent of Gambian national household energy needs (Forster and Zohrer, 1982, Sumser, 1988 cited in Thoma 1989), and 17 percent of the total national timber (Schindele and Bangura, 1988 cited in Thoma 1989). Formal and informal sector forest products include honey, fruits, fencing, mats, rhun palm (Borassus aethiopum) splits, livestock forage, nuts, oils, medicines, roofing materials, and so forth. The sole formal forest product export is palm kernel nuts from African oil palm (Elaeis guineensis).

The estimated contribution of the forestry sector to each Gambian household was estimated in 1987 to be D 2,200/year, or D 73 million nationally (Kasberger 1987 cited in Thoma, 1989). Thus, by this calculation, even if the environmental benefits, such as soil retention, water infiltration, organic (natural) fertilizer and others are not included, the forest products of The Gambia

constitute more than 25 percent of the country's GDP (Thoma, 1989).[2]

III. INSTITUTIONAL SETTING

A. The Gambian Forestry Department

The Forestry Service was first established in 1950 under the Ministry of Agriculture and Natural Resources. During the Service's first ten years, and still under British colonial rule, efforts were focused on the establishment and the protection of 66 Forest Parks in the 5 Divisions of The Gambia.

Between 1951 and 1954, additional provisions regarding forests were promulgated. Key among these, in addition to the establishment of Forest Parks, were giving protected species status to two tree species (Khaya senegalensis and Chlorophora regia) and providing for the supervision of forest land. After independence in 1965, most of these earlier colonial laws were incorporated into the Lands (Provinces) Act (LPA) and Provinces' Lands Regulations of 1966. Additional and important changes within the forestry sector at independence included extension of certain laws governing Forest Parks to areas outside of the parks, such as the introduction of permits for timber, charcoal and firewood production, and the introduction of fines for setting bush fires. Traditional leaders remained responsible for overall forest protection, as well as for deciding the location and species of tree to be extracted.

However, most of the aforementioned forest protection laws were never adequately enforced due to a combination of factors, including a serious lack of trained forestry personnel.

In 1976, the forestry service was upgraded to Department status within what is today the MNRE. The Forestry Act of 1977 and the subsequent Forestry Regulations of 1978 further defined the public forestry sector in The Gambia, and served to revoke the Provinces Lands Regulations of 1966.[3] These remain the major

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[2] These figures, from the informal sector, are not necessarily reflected in the official estimations of forestry sector contributions to the economy.

[3] Part VII, Section 40 (1), of The Forestry Act of 1977 specifically repeals the Provinces' Lands Regulations. The reference summary in the margin of this Section, although not the actual Section, states that the Land (Provinces) Act is also repealed. Although this causes some confusion, in practice and in the documentation, the Land (Provinces) Act is considered repealed by The Forestry Act of 1977.

pieces of forestry legislation to date. Although not forestry specific, the National Environmental Management Act (NEMA) was enacted in 1987. This Act gave ministerial level recognition to environmental concerns by legislating quarterly meetings of those ministries, such as MNRE, concerned with environmental and natural resources considerations. This body has not met regularly, but with the strengthened operational responsibilities of MNRE's Environment Unit proposed under the Gambian Environmental Action Plan, its role should be enhanced.

B. Policy and Sectoral Planning

The Forestry Department developed a series of five year plans that began in 1975. In 1981 the Forestry Department, then with a staff of 126, was expanded. The increased responsibilities accorded to the Forestry Department at this time included, among others: increased control of forest products, except those used for domestic consumption, under the presumption that all forest products were owned by the government unless the contrary was proved; and an increased emphasis on the control of forest products transport (Thoma, 1991).

A Forestry Subsector Programme was submitted to a donor round table in 1987 in hopes of soliciting financial support. This five year strategy included: strengthening private sector initiatives in forest product marketing through credit incentives, license modifications and training; research into village woodlot feasibility and use; saline soil specific species trials; and expanded bee keeping activities on the village level. However, there was no significant donor response at that time.

The current (1992) policy objectives of the Forestry Department include: minimizing soil desiccation and loss; maintaining river bank stability; providing an adequate supply of wood and other forest products for industrial and domestic use; promoting tree planting; fostering environmental awareness; and maintaining a Forestry Department with adequately trained personnel. Additional forestry sector project goals were also identified in the Draft GEAP (January 1992).

C. Budget and Revenues

The total 1991-92 recurrent budget estimate for the Department of Forestry is D 1,603,770 ($178,000 US)[4]. Salaries and allowances account for 65 percent of the total. Travelling expenses and vehicle operation and maintenance were budgeted at D 115,000 ($12,800 US) for the entire country. The Forestry Department has

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[4]$1 US = approximately 9 dalasis in April 1992

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at least one four-wheel drive vehicle per division with a fuel ration of 30 liters/week. Senior Rangers and some guards have motorcycles, and some Scouts have bicycles. Development activities are almost entirely donor supported at this time.

Table 3 presents a breakdown of revenues in the forestry sector. These are currently derived from licenses, permits, royalties and the sale of confiscated forest products that are illegally obtained and/or transported. The Forestry Inspectorate, within the Protection Unit, is responsible for these activities.

Table 3: Revenues in the Forestry Sector[5]

Fiscal Year 86/87 = 170,291 D
Fiscal Year 87/88 = 179,956 D
Fiscal Year 88/89 = 136,873 D
Fiscal Year 89-90 = 190,805 D
Fiscal Year 90/91 = 200,000 D

There is no further breakdown of these numbers by source of revenue available.

D. Current Staff

At present, the Forestry Department is divided into 4 major Units. These are: 1) Directorate/Administration; 2) Forest Protection (includes the Forest Inspectorate); 3) Forest Plantations, and; 4) Forest Research/Utilization (includes a small extension section). These Units are headed by Forestry Officers under the supervision of the Assistant Director. The Forestry Department is represented in each division of The Gambia by a Forestry Officer who is supported to a variable extent by guards and scouts.

According to the official "Estimates of Revenues and Expenditures" for 1991/92, which were updated by the Acting Director of the Forestry Department in April 1992, the staff of the Forestry Department is 145, with an overall breakdown of professional forestry posts, divided among the above Units, as follows:

[5]The figures for Fiscal Years 1986-1989 reflect incomes earned by FD sawmill operations, which were curtailed in 1989.

Table 4: Forestry Department Staff Levels

1 Senior Forestry Officer	Grade 9
5 Forestry Officers	Grade 8
1 Assistant Forestry Officer	Grade 7
6 Forest Superintendents	Grade 6
2 Forestry Assistants	Grade 5
10 Senior Forest Rangers	Grade 5
9 Forest Rangers	Grade 3
29 Forest Guards	Grade 1
60 Forest Scouts	Grade 1

The highest civil service grade in The Gambia is 12. The number of positions per Unit can be easily rearranged within the Department, but the overall staff number is firm at this time. As of April 1992, there were no vacancies in the Forestry Department.

There are currently only two Masters degree-level foresters within the Forestry Department, who serve as Acting Director and Assistant Director of Forestry. In addition, there are two other degreed staff - one B.Sc. forester in charge of the Plantation Division, and one B.Sc. attached full-time to the GGFP. There are also three staff members out of the country for B.Sc. level training. Upon their return, two will be assigned to the GGFP and one will be assigned as a research assistant in the Directorate. There are no degreed Senior Forestry Officers at the Divisional level at this time.

Unlike many forestry departments in West Africa, The Gambia does not have an entrenched forest service operating in the field that has engendered deep resentment among local populations due to repressive and exploitive tactics. Thus, there is a high potential for well-managed and organized interventions, such as training in participatory management, to foster positive change in the forestry sector.

E. Training

The lack of adequately trained staff is a major constraint of the Forestry Department. Training on a number of levels is needed to increase the technical capacity of the Forestry Department to effectively expand current programs. The Forestry Department's Forestry Subsector Programme identified the need for degree training for seven staff members, including two M.S. and five B.S.

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degrees (one for each Division), and highlighted the need for eventual M.S. level training in Social Forestry. Thoma (GGFP, 1989) recommended ten Community Forest Management certificates over five years, and one B.S. degree candidate in agro- or social forestry for each Division.

The ANR Program is designed within a five year time frame. Investments in training will provide benefits over the long term, thus impacts will not be felt immediately. Increases in trained technical staff, such as proposed by the ANR project, should occur at a rate commensurate with the absorptive capacity of the Forestry Department to undertake field activities at any given time.

Under the ANR Support Project, two B.Sc. degrees are proposed for Division Forest Officers. In addition, ten Community Forest Management certificate training programs are proposed over the five year life of the ANR project. If possible, training should be staggered so as not to critically stress the Forestry Department's current limited resources.

The training programs selected should have an integrated mix of subjects, including forest management, sylviculture, agroforestry, social forestry, ecology, and other relevant course and practical work. The Forestry Department believes that the most appropriate training for African foresters is at African institutions of higher education with high quality forestry programs. There are many positive aspects to training foresters in Africa, chief among them the appropriateness of a curriculum to the forest ecosystems where the foresters will be working. Possible African training institutions for B.Sc. candidates in Forestry include: The Sokoine University (former University of Dar es Salaam School of Forestry, Agriculture and Veterinary Sciences) in Tanzania and The University of Ibadan in Nigeria. Universities in the United States to consider are: The University of Idaho, North Carolina State, The University of Arizona and The University of Florida. The following institutions have been identified for Community Forest Management training: Kasetsart University in Thailand, The International Center for Earth Sciences in Enschede and Waegeninen in The Netherlands. Short-term training could take place at ICRAF, IITA, Oxford University Forestry Institute, The Hassan II Agriculture and Veterinary Institute in Morocco, or other institutions. The possibility of arranging internships at ongoing projects in Africa should also be explored.

In-country seminars will also be a part of the ANR program. Such seminars could include: participatory development methodologies, social forestry, women and natural resources management, natural forest management, agroforestry, environmental education, systems ecology, soil conservation, and other appropriate topics. There is great potential for site visits for both the Forestry Department staff and involved local groups and individuals within Africa. These should be undertaken at critical

points during the ANR Program in order to demonstrate key concepts, and to highlight results achieved and experiences acquired in similar situations. Possibilities include Guesselbodi in Niger, FAO projects in the Fouta Djallon in Guinea, NGO-NRM projects in Mali and others. Additional training-related information can be found in Thoma (1991) and Karch (1990).

Suggested criteria for candidate selection are:

- that an internship in Community Forest Management and Natural Forest Management through GGFP be completed;
- that a candidate is assured a position upon successful completion of his/her training;
- that women are considered as candidates, especially for posts involving village organization.

Preference should be given to those individuals who have worked with GGFP and have demonstrated an ability to manage Community and Natural Forest Management projects. Emphasis should be placed on the training of existing staff, both to foster professional development and morale, and because current staff numbers are fixed. However, the Forestry Department should be encouraged to replace, as possible, those staff members that are not motivated to face the increasing challenges and responsibilities of the Forestry Department in the face of rapid environmental degradation.

A model for trainee selection has already been used successfully by the GGFP. The model is a multi-step process that consists of the following:

1) A public announcement (by radio) of a test to select candidates of O-level education degree with background in biology and mathematics. Test results serve as the first cut for qualified candidates;

2) One-on-one interviews with those remaining, leading to a second cut;

3) An internship, whereby the candidates are placed in the field to work with existing field teams. This phase includes intense manual labor, such as clearing, planting, nursery development, and participation in Community Forestry Management;

4) This phase serves as the final cut, whereby those remaining have had experience in field and community extension work, and remain interested and committed to forestry. These candidates then become eligible for either short-term or long-term training opportunities in

The Gambia, in the region and/or overseas.

If trained individuals cannot find subsequent full time employment within the Forestry Department, they are sometimes employed by the GGFP to work as forestry assistants on an as needed basis. In the future, these experienced individuals could be picked up by the Forestry Department as openings occur or staff numbers increase, or assist NGOs.

Community level, in-country and/or regional training for community members active in forestry activities is also proposed. Relevant subjects include forestry/sylviculture, conflict resolution, accounting, functional literacy, and so forth. Trained Forestry Department staff would ideally serve as trainers for villagers in the necessary skill areas. These local experts would be complimented by competent NGO technicians, as well as expatriate assistance, as necessary.

IV. PAST AND PRESENT ACTIVITIES

A. Plantation Projects

Gmelina arborea was introduced into The Gambia in 1959 to meet the expected increase in fuelwood demand. To accomplish this, natural forests were converted to plantations. The establishment of Gmelina plantations continued under the Forestry Department until 1985, and received USAID financing for the period 1980-85. Gmelina never caught on as a fuelwood substitution species, and unfortunately, hundreds of hectares of natural forest were lost to conversion during plantation establishment.

To this day, people continue to rely on relatively high quality indigenous species which, due to current pricing and control structures, are largely under-valued. Market value usually reflects only the minimal costs of local labor and underpriced and under-enforced transportation and harvest fees, not the actual value of the fuelwood product or its replacement cost.

The Nyembi sawmill is located in Brikama, adjacent to Forestry Department Gmelina plantations. This mill was formerly owned by the GOTG, but was recently privatized under a five-year agreement with the Forestry Department. The benefits anticipated under privatization, in particular the production of less expensive fuelwood that can compete effectively with natural forest fuelwood, have not yet materialized. However, this experiment is still in the early phases. Aside from two GGFP sawmills, there are no sawmill licenses granted in The Gambia apart from Nyembi, where the supply of Gmelina is managed by the Forestry Department.

It is anticipated that policy and price reforms initiated

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under the ANR Program will cause markets to reflect the true replacement costs of natural forest products. If so, Gmelina could finally come to serve its intended purpose.

B. Reforestation Projects

Village reforestation and community woodlot programs have been financed by various donors over the years, including USAID and the EC. These efforts proved largely unsuccessful. The main reasons for the lack of success include:

- Tenure constraints that do not permit tree planting by itinerant farmers, even if they have farmed the same land for years. Custom dictates that permanent interventions, such as tree planting on a piece of land, confer ownership rights to an individual;

- Lack of economic incentive because, unlike fuel or pole wood plantations or woodlots, the "free" wood of the forest or savanna does not require any financial or labor investment to plant or to maintain;

- People have used the same species for generations. New and exotic species (such as Gmelina or Eucalyptus spp.) that do not have the same qualities as local wood, are not readily accepted.

- Communal orchards and woodlots do not do well because it is difficult to share benefits and divide management responsibility. These interventions have proven more successful with individuals on private lands.

With an accelerating decline in the availability of forest products (many rhun palm splits now come from Guinea), future efforts, such as could be undertaken by NGOs through the ANR project, could meet with greater acceptance. However, the lessons learned from past experiences should be considered carefully before further attempts with these interventions are attempted.

C. Additional Efforts

A number of other forestry interventions have been initiated over the years, including the introduction of a national tree planting day, the establishment of village woodlots, introduction of improved cookstoves, the establishment of village fire fighting committees, increased public awareness and environmental education campaigns, among others. The Forestry Department has instituted a ban on charcoal production, which has been reasonably effective. Extension efforts to promote these activities are coordinated with the extension service of the MOA. Sporadic radio broadcasts, and

articles in the Senela publication, are also part of the Forestry Department's outreach efforts.

There have been a number of other efforts in the forestry sector over the years. These include: the Soil and Water Management Project financed by USAID and GTZ; The GARD Project, financed by USAID; the ITC project; and a number of other projects undertaken by donors, NGOs, PVOs and other volunteer agencies, such as Peace Corps (see Section II-E, "Relationship to Other AID and Donor Projects" in main text of the PAAD).

D. The Gambian-German Forestry Project

The Gambian-German Forestry Project (GGFP) is a multi-year, multi-phase effort. The project began in 1979 with an emphasis on the improved management of National Forest Parks, or Natural Forest Management. Over the last five years the project has increased efforts to initiate and replicate Community Forest Management, and it will continue to function until 1993. The GGFP has provided the following information regarding the breakdown of its activities, by phase:

Phase I: 1979

- Delivery of materials

Phase II: 1980-81

- Land use mapping including 14 land use classes and 540 maps
- Survey and demarcation of all 66 Gambian Forest Parks
- Forest inventory within all land use classes and all Divisions. The main findings of the inventory were: general lack of young (< 40 years) trees; high percentage of dead, decayed and stressed trees; remarkable change in species composition to fire resistant species; remarkable reduction in overall tree cover; high percentage of secondary forest;
- Species trials including: 293 trial plots with 28 local and 37 exotic species; free distribution of fruit and agroforestry trees. The main findings of this phase were that local species have a high survival rate and, although initial growth is slower, they are less susceptible to drought and insect and fungal attacks than exotics. Also, local species have a relatively high growth increment after 10-15 years and can overtake exotics.
- Natural Forest Management planning including the

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elaboration of management plans in 6 forest parks (Bijilo, Bama Kuno, Katilenge, Mutaro Kunda, Brikama, Faba). A seventh forest park, at Kaiaf, serves as a research station for species and site trials for indigenous and exotic species, restoration ecology and other pertinent subjects.

Phases IV and V: 1983-86

- These phases consisted largely of the intensive implementation of the forestry management plans elaborated in the earlier phases. These activities included sylviculture, protection, deadwood utilization, afforestation, enrichment planting and conversion of dead wood and old trees at two project sawmills at Kafuta and Dumbutu.

Phase VI: 1986-1993

- This phase is largely the continuation and adaptation of lessons learned through the processes initiated earlier. One main point of departure was the introduction of a Community Forestry Management Pilot Project. This will be discussed in detail below.

Other GGFP activities that cut across the life of the project are: training, including to the M.S., B.S., and Diploma levels; institution building within the Forestry Department, including support for such operational costs as vehicles, equipment and forest station construction. At present, there are no plans to expand Natural Forest Management to additional forest parks, due to a lack of financial means. Discussions are underway with donors, including USAID, to gauge interest in the continuation of this important work.

E. GGFP - Forest Park Management (Natural Forest Management)

Forest park management has not yet produced detailed figures, such as annual increment or total biomass data, on the results of management interventions. However, a site visit will readily show the major biophysical difference between managed and adjacent unmanaged areas. Nonetheless, the following general estimates provide some information. According to Thoma (1989), sustained yield selective cutting over 10 year rotations would produce the following outputs of marketable species in cubic meters/hectare (cbm/ha):

- closed woodland - 9 cbm/ha (fuelwood) 8 cbm/ha (sawlogs) (50 percent deadwood)
- open woodland - 7 cbm/ha (fuelwood) 5 cbm/ha (sawlogs) (80 percent deadwood)

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Although quantifiable information is not available, encouraging observations from site visits include:

- The ability of local species to naturally regenerate, compete and grow relatively quickly once protected from fire, animals and agriculture. Many forestry projects maintain that local species, though highly valuable, are too slow growing. This often dictates the use of fast-growing exotic trees with less resistance to pests, fire and other problems, and which are often of less value. By demonstrating that local species are a viable sylvicultural option, GGFP can encourage a more valuable and appropriate mix of local and exotic species.

- Community profit from the extraction of deadwood when the GOTG no longer exclusively determines how the forest can be used. The community itself can sell the dead wood that it could previously use only in the home. This short-term benefit demonstrates early in the long-term process of forest management that there is value in what is being tried.

- The suppression of undergrowth that usually serves as fuel for destructive fires. The growth of the forest canopy has served to effectively shade out and reduce the grasses that grow freely in open spaces, providing fuel for passing fires.

- Lessons learned regarding optimal species for live fencing. The GGFP has learned many valuable lessons through trial and error. One of these was recognizing that the 50 meter firebreaks originally bulldozed around parks were not appropriate or sustainable. Subsequent efforts went to the establishment of living "green" fences around forest parks to suppress fire and keep out animals. Different species have been tried with varying success, and the fine tuning of this concept continues.

- The managed Forest Parks serve as ideal field laboratories and training sites for future Forestry Department foresters and others involved in forest management. It is anticipated during the ANR Program that there will be close collaboration with the GGFP, in order to tap into the vast experience of the project, as well as some of the infrastructural and training resources available.

Forest management, whether in forest parks or community forests, is a gradual process that will probably not show significant sustainable results and revenues until the medium to long term - 10-80 years, for example, in managed Forest Parks. The actual time frame depends on such factors as sylvicultural

practices, species composition, site and species ecology, anthropomorphic variables (i.e. fire, grazing) and so forth. With the institutional mechanisms proposed in the ANR project in place, such as a redirection of forest sector revenues to a special account within the Forestry Department, sustainable forest development and management efforts can increase. Continued efforts in these areas is critical if the ground breaking work of the Forestry Department and the GGFP are to be sustainable over time.

At this point, keeping in mind the novelty and intricacies of what is being tested, along with the long term investments required for successful forest management to show sustainable results, USAID should encourage the GOTG and the GTZ to continue with the GGFP, and also work in concert the GGFP and other donors and organizations intervening in the forestry sector. Project assistance is recommended until the Natural Forest Management and Community Forest Management models are honed to the point where they surely work, and the environmental and economic benefits are secure enough to allow: the institutionalizing of the systems; increased village benefits to the point where Community Forest Management is both in demand and available; the stabilization of revenues to the Forestry Department to finance the operations of Community Forest Management and Forest Park Development.

F. GGFP - Community Forestry Management

GGFP has defined community forestry to be "the implementation of forest management by villages or communal groups in a forest area which legally belongs to them and where they are the only usufructuaries of the benefits, whereby the Forestry Department will give technical and supportive services and supervise the actions according to existing forest laws." (Thoma, GGFP, 1989).

Community Forest Management is a new and unique approach to forest management in The Gambia. The principle merges adequate inter-disciplinary technical assistance and extension with a formal agreement between participating communities and government partners as to what is expected from each side. Community Forest Management is not conducted in a vacuum. Baseline studies and interviews show a genuine awareness of the state of land and forest degradation, and a willingness and eagerness to participate in appropriate remedial approaches. In Community Forest Management, each and every step is conducted with the participation and substantive involvement of community members.

The lessons learned and approach defined in the GGFP model must be reinforced, complemented, modified and built upon, but there is no need to introduce entirely new techniques or approaches at this point.

The GGFP has generated an extensive amount of literature in the preparatory phase of the Community Forest Management pilot project. Three distinct Reports on "Possibilities of Introducing Community Forestry in the Gambia" (Nos. 21-Part I, by W. Thoma:1989, 23-Part II:Vol. I, by Seibert:1991, 24-Part III, by W. Thoma and S. Jateh:1991) provide comprehensive documentation of the entire research phase of the GGFP Community Forest Management Project. Volume 24 culminates the research efforts to date and provides detailed information on the steps toward implementing a Community Forest Management program. The intent here is not to replicate this comprehensive body of work, but to provide an outline of the approach evolved during the process.

At present, Community Forest Management requires that forestry legislation be modified so that community members gain use rights over common resources. Although this may seem simple at first, there are historical experiences to show that if such a change were enacted without the existence of a comprehensive management plan developed with competent technical assistance, communities could mine the resource simply because they are not aware of other alternatives.

The use rights allowed under Community Forest Management include:

- harvesting for timber and fuelwood
- harvesting of forest products
- determination of annual yields
- sylviculture regulation and sale of products, including the establishment of fees
- prohibitions deemed necessary or warranted
- regulation of fire

Integral to Community Forest Management is an inter-disciplinary approach that involves all relevant government technical services, such as DAS and DLS, as well as locally active NGOs. Community Forest Management field work begins with intensive baseline studies of target or, eventually, applicant communities. Information is gathered on the socio-economic setting, bio-physical landscape, current and past land use patterns, and so forth. Once these data are collected, the communities and the technical assistants develop a comprehensive land use management plan for forest and other resource use. Included in such plans are sylvicultural prescriptions, including afforestation targets (i.e. live fencing), enrichment planting, deadwood utilization, timber harvesting, grazing rights, benefit sharing, and so on.

In order to assure project sustainability to the greatest extent possible, the Community Forest Management project achieves results without the use of fertilizers, pesticides, Food-for-Work or other subsidized benefits that often encourage participation for the means, rather than the ends. The ANR Program will also

encourage this approach.

Once the plan and agreement are finalized, the GOTG grants a community full rights to the forest products, and waives any and all license, permit and royalty provisions that applied. In essence, the community regains its forest resource, as well as the responsibility for proper management. Each and every point in the agreement is discussed in detail, so that all partners are sure of the responsibilities incumbent upon them to successfully implement the plan. Important provisions concern economic benefit distribution and the fact that, if the community abuses the rights granted to it under the plan, the Forestry Department may suspend the legal agreement until such time as the community returns to the original plan.

Profits from the managed exploitation of forest products under Community Forest Management remain within the community and are deposited into a village development account. This account is managed by a local committee selected by consensus to represent the village in decisions regarding Community Forest Management activities. This committee can be either an established local committee that functions well, or an independent committee chosen strictly for this purpose. The choice on these matters rests with the local populace. Although nothing formal has been determined, it is proposed that a certain percentage of the earnings from Community Forest Management, perhaps 10-15 percent, will be deposited in a Community Forestry Fund to finance the technical assistance provided by the Forestry Department. This provision would be included in the Community Forest Management agreement. Villages will not issue licenses or take on the responsibility of collecting fees and royalties. These responsibilities will remain under the purview of the Forestry Department. Thus, any resale of forest products will be subject to the appropriate tariff levied by the Forestry Department, such as for transportation. It is important that target Community Forest Management communities retain responsible and independent control of forest-generated revenues.

The benefits of Community Forest Management are both long- and short-term, including the eventual reversal of forest and land degradation in target areas, increased rural incomes from the sale of forest products, increased self-reliance and self-determination of rural citizens, a strengthening of the technical capabilities of GOTG Departments and villages. In general, accrued benefits are social, ecological and economical.

In fact, as communities become more responsible for the management of the forest resource, a certain spread effect occurs. In the pilot community of Brefet, people have been reporting on illegal forestry extractions outside of the Community Forest area. The Forestry Department is sharing 30 percent of the revenues from the sale of produce confiscated due to these actions.

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1. Community Resources Management Agreements

Community Resource Management Agreements (CRMAs) are discussed in detail in the Institutional Framework section of the PAAD document. In brief, these agreements will be similar to the model developed for Community Forest Management, particularly as they are based on the development of participatory management plans. However, CRMAs will expand the concept from a forestry focus to a more inclusive consideration of the various natural resources management constraints confronting communities.[6]

2. Community Forest Management Replication

To succeed, Community Forest Management activities must be based on well defined and consistent objectives. In the case of Community Forest Management, at least at the present time, the Forestry Department needs to be the lead agency for field activities, as it is the only Department that has comprehensive, albeit limited, experience in this area. The Forestry Department and GGFP are cognizant of the need for input from other government departments and non-governmental organizations. The growth of this integrated concept from Community Forest Management to that of land use management will be facilitated by the ANR Program through CRMAs.

The GGFP currently plans to replicate the Community Forest Management model in one or two villages identified and surveyed during the baseline study phase. In addition, the Forestry Department claims that one other site per Division is the maximum capacity for additional Community Forest Management replication given current resources, such as adequately trained field personnel. This is a sound goal as it establishes Community Forest Management in representative areas of the country, making eventual extension efforts easier. However, this approach would still be part of the pilot phase, and thus implies intensive inputs to conduct the adequate baseline studies, management plan development and agreement, and field implementation.

To replicate Community Forest Management requires a Senior Forest Ranger with at least two years advanced training in forestry (already in the field) to serve as project head. He would be

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[6]. For the purposes of this Annex Community Forest Management, as opposed to Community Resource Management Agreement or a combination of both terms, is mainly referred to, as Community Forest Management is an ongoing and familiar approach to many. However, the concept of a Resource Use Agreement, as a progression of the Community Forest Management model, can be theoretically substituted for Community Forest Management.

assisted by a Forest Guard, a post that usually is filled by someone without formal forestry training. Before beginning, the above staff would undertake a requisite in-country training/internship at GGFP field sites. The overall activity would be supervised by the Forest Superintendent. With adequate mobility, it is estimated that the above team could at best work on two Community Forest Management plans at once. For GGFP's current replication plans for Community Forest Management in the Western Division, training is needed for one forest ranger and three forest guards.

The time estimated to develop a sound management plan is at least one year. This includes the two person team described above and the active participation of villagers, and ideally local field representatives from the implicated technical departments and NGOs, at every step. Continuity of key personnel and one clearly defined lead agency with a long term commitment is crucial to the success of Community Forest Management.

3. Constraints

The intensive investment of time and technical resources to launch a Community Forest Management Plan should not be underestimated, nor should the very early state of field level experience. GGFP staff admit that the village of Brefet was chosen as a pilot because baseline studies indicated that it would be the most acceptable site, with the most willing populace. Although field interventions are underway, Brefet is just developing its long term management plan. Thus by implication, Community Forest Management replication will be slow at this stage. Some additional specific constraints include:

- A near complete lack of trained professionals to do the technical, inter-disciplinary and inter-sectoral work required;

- The lack of an inter-sectoral framework, such as that proposed by ANR, which empowers and trains District level technical staff to work together in the Community Forest Management/Community Resource Management approach; and

- A lack of clear economic incentives given the illegal felling and distribution activities that currently undersell managed activities.

The ANR Project will take these constraints into consideration by providing training on different levels - formal and informal, in-country and third country - to those technical departments, NGOs and communities increasingly involved in integrated resource use planning. In addition, the long term technical specialist assigned to the MNRE will work with those villages, NGOs, technical

departments, and other donors that are prepared to undertake the design and development of a Community Resource Management Agreement.

By assisting to develop the institutional and technical frameworks, and by providing technical training and organizational assistance to those active in field implementation, the ANR project will attempt to create a sustainable environment for more rapid Community Forest Management (Community Resource Management) dissemination.

G. Legal Framework for Community Forest Management

Existing legislation provides enough latitude to initiate community forestry in terms of tax and usufruct agreements. However, any eventual large scale introduction of community forestry will require legislative modification. USAID's ANR project will condition non-project assistance upon modifications of the Forestry Act and Regulations that will institutionalize the concept of Community Forest (Resource) Management, and streamline the process by which increased community resource management is achieved. These modifications will be based on the results of carefully monitored field experiences, such as those undertaken by the GGFP.

The legal history of forestry legislation in The Gambia provides perspective as to how Community Forest Management evolved, and why communities might be eager to consider Community Forest Management as a viable option. The pertinent legislation in The Gambia regarding trees and forests is found in:

- Land (Provinces) Act, 1966
- Forestry Act, 1977
- Forestry Regulations, 1978
- Wildlife Conservation Act, 1977
- Wildlife Regulations, 1978
- National Environmental Management Act, 1987

The above, as well as the concept of environmental awareness and conservation, are supported by President Jawara's Banjul Declaration of 1977.

1. Lands (Provinces) Act and Provinces' Lands Regulations of 1966

The Lands (Provinces) Act was largely based on Islamic customary law, a key tenet of which holds that land cannot be sold, rented, mortgaged or used as collateral. Traditionally, if an individual cleared a piece of land, he obtained control and permanent user rights over that parcel of land. The control over unused and unclaimed village land was then vested in the village

head. On most village lands where permanent user rights were established under control of the compound head, the compound head maintains formal user rights, but in practice these rights are only symbolic. In those areas where demographic pressure increased tenurial conflicts, statutory law became increasingly necessary.

These locally-based (traditional) laws were all officially repealed under the Forestry Act of 1977, when formal control was shifted to the state. However, the reality in the country side is that the traditional system of land use and rights still holds sway.

2. Forestry Act of 1977 and Regulations of 1978

The 1977-78 Forestry Acts and Regulations transferred the control of land and forest management from village chiefs to local forest scouts. The intent of this change was to slow deforestation and land degradation, especially due to the uncontrolled clearing of forests for agricultural use. The effect of this change was to formalize state control over the use of forest resources for timber felling, extraction and land clearing, although usufruct rights for non-timber forest products and deadwood extraction remained in tact. Local farmers, as well as non-local entrepreneurs, needed to obtain a permit for felling trees, and to apply for a license for timber harvesting. These changes were made largely without public input or participation, with the result that the roles and responsibilities for forest management became unclear. An indicator of the negative effect of these changes was a noticeable increase in damaging brush fires (Thoma, 1991), possibly caused by villager presumption that forest scouts were now responsible for such things as fire control.

Specific key sections of the Forestry Act that included these changes were:

- Section III(25), which states that "The acquisition of land is done in the form of an agreement between any person occupying land or the village head on behalf of the village and the government in which any rights on and over the land are granted and conveyed absolutely to the government, not withstanding any native law or custom to the contrary"

- Section VI(39), which states "When in any proceeding taken under this Act, or in consequence of anything done under this Act, a question arises as to the ownership of any forest produce, such forest produce shall be presumed to be the property of the government unless the contrary is proved". This, in effect, transferred ownership to the government of all products from naturally grown forests.

As per the former Land (Provinces) Act, Forestry Regulation 5 restates that the responsibility for forest protection rests with traditional leaders, in spite of the fact that decision-making regarding the absolute use of forests was granted to the government.

There are two sections under the Forestry Act that can be interpreted to allow for Community Forest Management. These are:

- Section 10(1)d wherein a "forest park" may be declared for "the particular use and benefit wholly or in part to any class of persons or for the benefit of any community". Under section 17(1)b & c, the Minister can specify "the rights which may be exercised within the proposed forest park" and "other special conditions affecting the proposed forest park". These may include existing rights and rights that the Minister "shall consider just and equitable to allow" and that coincide with the purpose and objective set forth by the proposed forest park. This procedure could allow for community forestry by establishing a sort of "community forest park". The constraints to this process are that it takes three years to get approval, and "forest parks" is a negative term that villagers link with government expropriation of land.

- Section II(3) provides a simpler procedure. This clause allows that "The Minister may by notice in The Gazette...withdraw from the operation of all or any of the provisions of this Act or any areas specified therein". This is the basis for the single Community Forest Management agreement currently in force in Brefet.

To affect any modification in the Forestry Act or Regulations, the following steps are necessary:

1) The Forestry Department forwards the recommendation to the Permanent Secretary of MNRE after all of the necessary research and justification is completed;

2) The Permanent Secretary forwards the change to the Minister;

3) The Minister presents that change to the Cabinet;

4) The change is forwarded to the House of Representatives (Parliament) which reads the change and either approves or disapproves (which could also occur during any step in the process). The Parliament only meets 2-3 times a year, so the amount of time a change would take can be assumed to be a maximum of six months, if all goes well.

V. NGOs - ROLE IN ANR AND THE FORESTRY SECTOR

Forestry interventions are mainly focused in two areas. The first is the management of Forest Parks, reserves set aside under the Land (Provinces) Act and the Forestry Act to be controlled and managed by the state, and the Forestry Department in particular. Although better trained human resources are needed to expand the number of Forest Parks under management, such technically demanding work is the job for trained foresters. This is not an area that is within the scope of NGOs, indeed it is doubtful that an NGO would want to undertake this sort of effort.

The second area of intervention is the pilot Community Forestry Management Program. Successful Community Forest Management requires that the government, under current law, grant usufruct rights to communities, to encourage more comprehensive resource use planning. Thus, government technical departments, more so than NGOs, are implicated in the long term.

The established approach of Community Forest Management is an inter-disciplinary one, and seeks the participation of other relevant government agencies and NGOs working in an area. This assures that the approach to forestry management is comprehensive, with long-term natural resource management planning as the ultimate goal. However like the Forestry Department, other government agencies, as well as NGOs implicated in resource use planning, lack professional staff trained in planning, inter-disciplinary approaches and technical areas of expertise.

In the short term, NGOs can assist villages undertaking Community Forest Management to meet identified needs during the bridge period between when a Community Forest Management Plan is initiated, and when the forest begins to show a managed and sustainable profit. It should be kept in mind that forestry interventions require a long-term perspective. NGO activities during this bridge phase could include agroforestry, market gardening, beekeeping, fruit tree orchards or other sustainable income generating activities that villagers request.

In the long term NGOs could manage the training of government and NGO technicians in resource use planning, participatory community development and inter-disciplinary approaches to field work. This is a valuable niche for the NGOs, as it allows an independent entity to promote inter-sectoral collaboration for shared objectives. Regardless of the scope of NGO involvement, it should always be in collaboration with the concerned government departments, and a spirit of collaboration should be fostered by both sectors.

Depending on the final structure of the ANR/NGO component, NGOs may be able to apply for small grants for forestry interventions outside of Community Forest Management. Learning

from past lessons, NGOs may more successfully initiate polewood or firewood species use in communities. Some NGOs are already actively promoting fruit tree orchards, which are in keen demand. The long-term approach necessary for Community Forest Management need not preclude valuable assistance in the short-term, as the important goal of any forestry intervention is to meet the needs for wood and non-timber forest products on a sustainable basis.

VI. LICENSES AND FEES

In The Gambia, licenses are issued annually and allow for the commercial cutting of dead wood by license holders. Permits are issued to license holders to cut live trees and authorize individuals to cut a specified number of a given species in a district. Forestry Department personnel supervise this process, and try to assure that the number of permits issued are within the sustainable extraction limits for species composition and total forest cover. Royalties must be paid in order to obtain a "removal permit", which is necessary to transport wood or other forest products, such as matting.

The present tariff schedule for licenses, permits and royalties severely underestimates the real value of forest products. In recent years revenues from all three sources for the entire country have averaged less than D 200,000/year (approximately $25,000 in FY 1990-1991). According to the Forestry Regulations of 1978 (Sec. 21(1)), the Director of the Forestry Department has the power to "prepare a tariff...specifying the rates and royalties to be paid for anything authorized" under the Forestry Act or Regulations. However, such politically and economically charged decisions usually go through the Minister.

Rural inhabitants are only allowed to collect non-timber products and fuelwood for domestic consumption. To sell forest products, licenses must be bought and fees paid. However, once a permit is sold to the tree-cutter, villages have no right to refuse admission to their forest. Currently, fees collected from licenses, permits and royalties are shared between local area councils (30 percent) and the Treasury (70 percent). However, this is not adequate compensation for a loss of absolute use rights to communities for forest goods, and does not provide the incentive to adequately manage forest resources.

Licenses are ostensibly non-transferable and permit only the license holder to cut wood, which theoretically limits the amount of harvesting that takes place. However, these restrictions are routinely violated, and many illegal cutters exist for each legal license holder. In addition, legal restrictions on cutting live wood are bypassed by killing live trees with fire or girdling. Fines for illegal cutting are so low that they do not constitute a deterrent.

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To obtain a license, an applicant must go through a number of levels. Applications go first to the District, where they are passed on to the Divisional Forestry Officer, who reviews them and forwards them to the Division License Committee for approval or disapproval. If an application is approved, it is sent back to the Forestry Officer for final determination on number and species of trees to be cut, and what the actual payment will be. This multi-level process was instituted to maintain better control over the issuing of permits and licenses. A Residence Permit or other proof of citizenship is required to obtain a license.

Policies are beginning to change, however. The tariff schedule was revised in 1991 to try to capture some of the real forest value, although the fees are still considered extremely inadequate. This was only the second time since 1978 that the tariffs have been increased. Recently, the Forestry Department began to limit the number of licenses issued annually, reducing them first by half, from 300 to 150, with another 25 percent reduction foreseen. The goal of this policy change is to restrict the number of licensees, making their activities easier to control. The Forestry Department is also looking at other measures to better mange the forest resources, including the possibility of limiting the number of transporters and the number of fuelwood loads that they can carry per annum.

Control of forest product transport, largely firewood, occurs at the police control station at Yundum. If a transporter is found to be without the requisite permits, the police contact the nearest forestry office. The illegal goods are confiscated and, upon receipt of permission from a magistrate, are resold. All monies from fees and sales are deposited in a government account, and do not accrue at this time to the Forestry Department. Although Gambia-wide figures are not available, the revenues collected through these sales in the Western Division totalled around D 10,000 ($1,100 US, April 1992) from the period August 1991-April 1992.

According to the Draft GEAP, the current system of fee collection and control needs to be streamlined and made more efficient, a change underway within the Forestry Department. Currently, the amount of fees, fines and sales from confiscated goods are not collected systematically, and information is not available in a central location, like the Forestry Department. As a result, scarce forest products move more freely than they should, which keeps the value of the products artificially low and leads to disincentives for improved forest management and/or tree planting.

Recognizing the staffing constraints within the Forestry Department, the ANR Project proposes short-term TA to assist the Forestry Department to streamline its collection systems. The consultant would work with the Forestry Department to: examine possibilities to systematize and organize the manner by which

licenses, fees and royalties are collected and reported; examine the current control system for illegal harvest and transport of forest products, and; if necessary make recommendations to the Forestry Department and the ANR Policy Advisor as to new or modified systems that would assist the Forestry Department to perform this function more efficiently.

The ANR project will, through a series of studies on inflationary impact, markets and consumption, support an increase in the tariff structure through conditionalities in order that the true value of the forest resource and its replacement costs begin to be factored into the market.

VII. STUDIES AND SHORT-TERM TECHNICAL ASSISTANCE

To support the objectives of the ANR Project in the forestry sector, the following short-term technical assistance and studies are proposed. Details on economic studies are under the section on "Conditionalities."

- A study of non-timber forest products (honey, medicine, thatch, nuts, etc.) and their value to local and national economies.

- A review of the Forestry Inspectorate to help determine where the weaknesses are in revenue collection, and assist in establishing a systematic fee collection and record keeping system for the Forestry Department.

- An inflationary impact study to assist in forest management planning and to determine the fees necessary for licenses, permits and royalties, in order to adequately value the forest resource at its replacement value.

- A fuelwood consumption survey to:

  1) Obtain a preliminary estimate of the annual per capita consumption of fuelwood for heating and cooking, particularly in urban areas, for pricing and forecasting purposes

  2) Provide guidance in the development of a regular monitoring process for the information collected (4-6 months possibly divided over a year long period)

- Assistance to the Environment Unit in the development of Environmental Impact Criteria. This is important from a sectoral standpoint as activities that are beneficial to one sector could harm another sector. Establishing an intra- and inter-ministerial review process will be

facilitated by technical assistance in this area.

- Short-term site visits, internships and workshops will also be included over the life of the ANR Project. Topics include Women in Natural Resources Management, Traditional Forestry Management Practices, Nursery Care and Maintenance, and so forth.

VIII. FORESTRY SECTOR CONDITIONALITIES

The Non-Project Assistance conditionalities that directly relate to the forestry sector are discussed in Annex B.

ANNEX K: ECONOMICS OF LIVESTOCK SECTOR

ANNEX K: ECONOMICS OF LIVESTOCK SECTOR

I. Summary

A situation statement provides a brief overview of the livestock sector in The Gambia and the context for the subsequent analysis. The report is based on (a) the most recent statistical information available from the Government of The Gambia (GOTG), (b) the stated and implied assumptions of the USAID ANR Program Assistance Initial Proposal (PAIP), and (c) the comments from a wide range of prominent producers, alkalo, and recognized experts in the industry. A "sustainable grazing" conceptual frame of reference is developed in order to help one better understand the underlying livestock/environment issues and to facilitate efforts to deal effectively with the problem.

Section III of the report is the analysis of the livestock sector and closely follows the outline of the "Excerpts from Scope of Work: Livestock Economist (March 22, 1992)."

Section IV of this report recommends that two ANR NPA conditionalities be used (1) to repeal the Livestock Marketing Act of 1975 in order to eliminate monopoly and (2) to reform taxation policy to support effective devolution of authority over "commons" grazing land. Likely economic impacts of these recommended policy changes are offered. Also included are (a) other recommendations for policy reform, (b) suggestions for future research, and (c) recommendations for village-level grazing management intervention.

II. SITUATION

A. Introduction

The primary purpose of the ANR project is broader than many previous AID livestock-related development projects. It is not simply to increase farm productivity and/or farmer net income. It is rather to increase **sustainable productivity**, that is, (a) to counter environmental degradation and to conserve existing Gambian agricultural and natural resources and (b) to allow for more sustainable agricultural development and production in the future. Therefore, for example, price enhancement per se is not the ultimate goal; price enhancement would only be an objective to the extent that it might lead to better management of productive resources. If one perceives the grazing resource problem to be excessive cattle numbers, one might argue that an increase in farm-gate price would motivate producers to increase offtake of cattle, which in turn might decrease the size of the

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national herd, which would result in less grazing pressure, and which ultimately would reduce overall environmental degradation.

If marketing inefficiencies existed, a policy reform which eliminated these inefficiencies might lead to higher producer prices. Thus, the ANR project incorporates a two-fold change instrument: village-level interventions working in conjunction with supportive policy reform.[1]

B. The "Sustainable Grazing" Paradigm

"Sustainable" livestock production, for the purposes of this analysis, is a grazing system which is able, over a very long period of time, to balance the ecological requirements of the environment, the social and nutritional needs of the community, the biological needs of the animals being managed, and the economic needs of the producer. The grazing system is extremely complex because of the number of variables involved, many of which are exogenous, such as weather and population growth. Furthermore, the variables are in constant flux, and the balance is necessarily dynamic. "Sustainability" goes beyond "conservation." Conservation, the avoidance of wasteful or destructive use of a natural resource, is encompassed by sustainability. But sustainability includes an explicit social/economic/environmental dynamic and a long-range planning horizon.

It is more useful to conceptualize pasture and range resources as the **"grazing resource."** Both the understanding of, and the solution to, the production resource problem is determined largely in how we visualize the problem. It is not simply the pasture or the range land or the ruminant numbers or water which is at issue, but rather it is the utilization of these resources, or more specifically the management of such utilization. The grazing concept captures the critical interactive effect better than any single term, such as range land or cattle production.

If we take any one of the components of the grazing system and focus on it, there is a natural tendency to take a less than comprehensive view and thus to think differently about the overall problem and solution. Sumberg (1988) reviewed the extensive twentieth-century literature on the Gambian livestock industry and identified three recurrent themes. These may be summarized as:

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[1] One half of the project funding, Non-Project Assistance (NPA), will be released with sustainability policy compliance. The other half, Project Support Assistance, will be used largely for technical and educational assistance to help The Gambia comply.

- The basic motivation for keeping cattle is assumed to be non-economic and therefore off-take rates are too low;

- Low off-take leads to overstocking, feed deficits, and one might add, environmental degradation; and

- There is a need to develop a true "mixed farming" system (which also may imply reducing cattle numbers.)

Together these themes constitute a viewpoint, one that Sumberg refers to as a "common understanding" of the industry and which in this annex will be referred to as the "off-take" paradigm. In contrast to the off-take paradigm we might pose a "grazing" paradigm. The livestock paradigm choice is important because it affects what analysts see and what planners propose.

Gambian producers may not think of themselves strictly as crop farmers (the crop being forage,) but neither do they act simply as cattle producers (or cow counters.) Their practices reflect a mixed-farming system approach to the extent that cattle are often integrated with forestry and agriculture (i.e., an agro-silvo-pastoral system.) Furthermore, they appear to perceive production as largely commercial and to use cattle ownership for economic purposes. They do need serious help in developing and managing their grazing resources, but it is not necessary for them to make a radical shift in overall perspective. Livestock is the most practical and least risky means for them to realize an economic end, transforming a resource that cannot be directly utilized by humans. Grazing is the most appropriate, efficient and profitable way for them to harvest the forage crop. Transformed by livestock, farmers consume or market the crop as a range of products, including milk and beef, or store it (as live animals) for later marketing or consumption.

If project designers can visualize the "cattle problem" more as a crop production or grazing issue, the focus will shift away from animal numbers, stocking rate and "off-take" to one of realizing the crop potential and examining how best to harvest and market or store the crop. Policy can then be directed toward allowing farmers to function more efficiently as forage crop producers, and thus to encourage greater overall sustainable production, rather than to attempt simply to restrict production.

The restriction path is a dead-end. Restriction is in essence a quota system and is inherently unsustainable. It is futile to hope that increased off-take will somehow lead permanently to an ideal, more restricted stocking rate. (It is interesting that the actual ideal rates or quota are never specified.) The quota approach is diametrically opposed to market liberalization promoted by the Government of The Gambia (GOTG.) Furthermore, from a logistic point of view, quotas would be

almost impossible to establish and enforce, and from an economic perspective, a quota system would be prohibitively expensive to administer.

Many livestock analysts recognize the importance of livestock in the Gambian economy, but fall within the tradition of the "common understanding" and rely on the off-take paradigm. The current analysis demonstrates that off-take is neither the problem nor the long-term solution. Short of a severely enforced regulation, increased off-take alone is not sustainable. The paradigm shift recommended here will lead to more effective policies because the implications of the grazing resource paradigm conform better to the universally observed human nature motivation and to the way in which Gambian livestock producers already appear to be acting.

C. Livestock Overview

1. Larger ruminants: The range resource is primarily utilized by grazing N'dama cattle. The N'dama is a dual purpose breed providing both beef and milk, Most observers assume that principal production is for beef, but there is evidence that the total value of milk for human consumption may be greater than the value for beef. The N'dama has also proven very useful for draft purposes. The 1990/91 National Agricultural Sample Survey (NASS 90) estimated that there were 280,959 head of cattle, of which 30,786 (11 percent) were used for animal traction.

2. Small ruminants: NASS 90 sets the number of sheep and goats at 300,494, slightly in excess of the cattle numbers. The asset and production values and resource utilization of a sheep or a goat are usually calculated as some fraction of those for a cow, the base unit. If we assume a mature cow to be equal to "one animal unit" (a.u.), a sheep or goat would be roughly equivalent to 0.1 a.u.. Small ruminants are extremely important to the overall economy, and they appear to have greater profitability potential than cattle. Given the disproportionate numbers of small ruminants owned by women (especially as opposed to the percentage of cattle owned by women)[2] , sheep and goats are especially important to the economic status of women. Currently, however, small ruminants, especially sheep, are for the most part produced on residual household, road or garden land, as opposed to range land. Goats will utilize range to a much greater extent than will sheep because of their grazing habits. However, at the present levels of production, small ruminants as opposed to cattle, do not pose anywhere near the same threat to the range and pasture resource.

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[2] NASS 90 reports that 62% of small ruminants are owned by women, whereas only 20% of large ruminants are owned by women.

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3. Non-ruminants (horses, donkeys, pigs and poultry): For cultural reasons (e.g., limited local pork consumption), minimal, non-range land use requirements, and disease problems (e.g., Newcastle disease,) non-ruminants are not currently a significant component of the Gambian livestock industry. NASS 90 reported that there were approximately 52,132 horses and donkeys, of which 43,558 (84 percent) were used for animal traction. While horses and donkeys graze to a very limited extent, they are not ruminants per se. The magnitude to which they utilize the grazing resource is minimal and for the purposes of this analysis can effectively be ignored. NASS 90 does not report on any other non-ruminants. This is not to say that non-ruminants are not important to farmers or do not have enormous economic potential in relation to the tourist and Banjul-area markets. However, for the purposes of this study, which concerns the grazing resources, we can effectively ignore them.

4. Stocking Rates Resource degradation is perceived to be caused by current high cattle numbers (claimed to be approximately 340,000.[3]) The overall stocking rate (0.33 animal units/hectare/year) over-stresses the grazing resource. This level of livestock production undoubtedly over-stresses existing range land, given increasing, alternative land-use demands, such as urbanization, double cropping, and market gardening. The problem lies in viewing the solution to be in limiting cattle numbers rather than in increasing carrying capacity of the total grazing resource.

III. ANALYSIS

A. Livestock Marketing Policy Reforms

1. The "Off-take" Focus:

"Off-take" is the number of animals in the herd which are annually removed from the herd for home consumption or for commercial purposes, e.g., for slaughter or export. The off-take rates in The Gambia are about 7-11 percent for cattle, somewhat low relative to comparable countries (10-12 percent) and lower still compared to more developed countries (where off-take could be as high as 28 percent for cattle). However, as a generalization, Gambian off-take rates, relative to those in other West African countries, are not significantly lower than might be expected.

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[3] By most other accounts (e.g., NASS 90,) this number appears to be inflated by about 12%. Total cattle numbers are difficult to determine, but it appears the number is in fact closer to 300,000.)

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A fundamental assumption in most analyses of the Gambian livestock sector and state of the environment is that "one of the causes of environmental degradation in the Gambia is the excessive number of animals on the limited rangelands." The question of whether the problem is animal numbers or degraded grazing resources is not addressed. If one focuses on the cattle numbers, one solution to the problem becomes "a higher off-take level, and thus reduced grazing pressure on range resources." The quest then becomes a search for the underlying cause of the low off-take.

But first we must inquire as to whether or not the off-take is in fact unreasonably low. If off-take is found to be unreasonably low, then there may be social, economic or biological causes. The underlying cause, once identified, can be addressed through policy reforms and/or interventions. If, on the other hand, off-take is not exceptionally low, especially relative to the absolute maximum potential off-take, then it will be very difficult to reduce grazing pressure simply by increasing off-take.

Second, we need to consider what actually drives off-take. Is Gambian off-take a function of marketing efficiency, as often assumed, or of management (production) efficiency? If it is a marketing issue, the policy reform would involve eliminating the marketing constraint. The main policy proposed for the livestock sector is to eliminate, to privatize, or to reform the Livestock Marketing Board (LMB). If, on the other hand, off-take is viewed primarily as a grazing management issue, the policy reform would involve removing the grazing management constraints.

Finally, whatever the degree of increased off-take and whatever the mechanism to increase off-take, we must consider the likely longer-term effect on national herd size if off-take were to be increased.

2. Social Motivations for Cattle Production

The first recurrent theme which Sumberg (1988) articulated was the so-called "social motivation" for cattle production in the Gambia. There is a fundamental misconception that livestock production is a social activity and is neither primarily commercial nor entirely economic. This misunderstanding has persisted for most of the twentieth-century. By contrast, this analysis assumes that the Gambian farmers, like most other farmers in the world, act in accordance with economic motivation. When one observes the composition of the herds, it appears that there are few surplus marketable males. (Some males need to be held back for breeding purposes and animal traction.) Presumably if there were more males produced, all or almost all of these would be marketed. Since females are generally held back for

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breeding purposes and milk, the number of surplus males is an important indicator of the degree to which production is commercial.

In a survey of 55 herds, Dunsmore (1986) concluded that cattle were being sold regularly. Regular meat and milk sales provide an on-going cashflow and suggest that cattle rearing is commercial. As in any business or family situation, exceptional cashflow requirements occasionally arise. These can be met by savings or liquidating an investment. The fact that a Gambian cattle producer sells one or more head of cattle to meet a cashflow need, such as school tuition, does not indicate that the cattle rearing is not commercial.

Cattle sales are predominately driven by economic considerations. For example, when groundnuts were being subsidized as part of the Economic Recovery Program, cattle sales fell as crop prices were good and farmers did not need to sell cattle to survive. Recently however, crop production has declined because of low rainfall and prices have dropped, and therefore cattle sales have increased.

Analysts who perceive the activity from a point of view other than that of the producer can easily misinterpret farmer behavior as irrational and therefore may attribute cattle ownership to cultural or social motivations. Strictly cultural motivations are extremely difficult, if not impossible, to isolate and identify. A social motivation often cited is that farmers hold cattle for social standing or prestige. A stronger argument is that cattle production is profitable, and cattle are therefore a valuable asset. The greater one's assets relative to one's liabilities, the greater one's net worth or wealth.[4] It is wealth, not cattle per se, that confers social standing and prestige. This relationship is not peculiar to the Gambia.

Gambian farmers, like most other people in the world, prefer to hold their wealth or savings in an appreciating asset (such as land or stocks which usually grow in value,) or in a low-risk financial instrument which bears interest at a rate greater than the prevailing inflation rate. An attractive location for one's savings might be a low risk, relatively liquid [5] investment

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[4] Given an economic incentive, if the profitability of cattle production were to increase, the value of the investment (the herd) would increase, and one might expect to see a greater desire to hold wealth in cattle ownership.

[5] The liquidity of the cattle asset is somewhat limited by the fact that it is not always possible to sell one's cattle at any moment. This limitation appears paradoxical in the light of the nearly constant short supply of beef in the butcher shops.

which provides good growth potential and good income. Cattle in the Gambian economy are exactly that kind of investment alternative. In fact, cattle are the only reasonable investment in up-country Gambia. Given low consumer demand, the potential savings rate is high; but there are no satisfactory savings institutions. The literature on the Gambian cattle industry (for example, Eastman et al, 1986), reveals a surprising misinterpretation that savings and investment are somehow social reasons, as opposed to economic reasons, for keeping cattle.

3. Production Inefficiencies

In order to understand why there are not more marketable males, one needs to examine a few of the key production variables. Calf mortality is high, compared to more developed cattle production systems. If the mortality rate were lower, there would be more bull calves to finish for the same number of cows.[6]

Similarly, reducing the time required to finish an animal for market from the current three years to two years, would have an impact on off-take. This improvement alone could increase off-take by 33 percent and bring the off-take rate to about 12 percent.[7] Reducing the calving interval to one year could also produce a dramatic increase in off-take. A 50 percent reduction in calving interval would produce twice as many bull calves for market, bringing the total off-take to about 18 percent. (It would also increase milk production, providing a greater surplus for sale.) These figures could be achieved by increasing nutrition, either through utilization of crop by-

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The explanation for the observed shortage may lie in the reluctance of butchers to hold adequate inventories without refrigeration. Only the hotels and the two butchers who supply the expatriate market have cold storage facilities.

[6] Obviously, another way to express the effect of this management change is that there could be the same number of bull calves to finish from fewer breeding cows. In fact, there would probably be some combination of these two effects. That is, the total herd size might remain approximately the same size, but the percentage of animals being finished for market in proportion to the breeding stock would increase. In short, the off-take would increase.

[7] In fact, this three year estimate may be low considering that work oxen comprise a large part of the slaughter males. However, the concept remains the same, that is, if the average finishing time could be reduced from the current length of time by 33%, off-take could be increased significantly.

products or improving grazing resources. However, there are not enough residual by-products and grazing improvements will take time and a concerted effort.

The potential off-take rate in the Gambian cattle production system is probably not much more than 20 percent at best. If one could achieve the above targets and reduce mortality from current levels of 10-20 percent to 3 percent (very low), and the number of cull cows just equalled the number of bull calves held back for draft or breeding purposes, and there were no other exceptional events, such as severe drought or disease problems, and the price of cattle remained stable, these modifications together might increase the potential off-take rate to about 22 percent. This best case scenario is, however, unlikely. Furthermore, these modifications would be predicated in part upon improved nutrition and health and would therefore require improved grazing management. This scenario would also increase national herd size unless more females were killed.

4. Market Inefficiencies

It has been hypothesized that off-take is reduced because of market inefficiencies, in particular as a result of large marketing margins. Two potential sources of large marketing margins are (a) parastatal (LMB) monopoly and monopsony powers and (b) exploitative private sector middlemen. It is true that Gambian livestock marketing is not as efficient as it might be, but the inefficiencies are exaggerated and a more efficient market would have relatively little impact on off-take.

Another hypothesis is that the market inefficiencies are caused by the LMB monopoly granted to it in 1975[8] (1) to import and export cattle and beef and (2) to purchase and slaughter beef for the Banjul market. Both hypotheses are analyzed below.

(a) LMB import and export monopoly effect

Marketing boards can play an important role, helping to provide more orderly marketing and greater price stability. When

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[8] The enacting legislation for the Livestock Marketing Board (LMB) was drawn up in 1975 and the LMB was established by an Act of Parliament in 1975. It is therefore usually referred to as the Livestock Marketing Act of 1975. However, since it did not actually receive presidential assent until January 7 of the following year, it is perhaps technically more correct to refer to it as "The Gambia Livestock Marketing Act No. 6 of 1976." The two terms are interchangeable, but this report consistently uses the more popular reference, i.e., Livestock Marketing Act of 1975.

managed efficiently they have been shown to be particularly effective in obtaining a higher price in the export market than individual producers can (Fleming, 1990). A marketing board is also in a position to monitor imports and to some extent control them by imposing tariffs, although other government agencies could perform this function equally well. The LMB has been granted a monopoly in these two areas but has failed to effectively exploit these opportunities.

The cattle breed of The Gambia is the N'dama. It is not a large breed (averaging only about 250 kg. when sent to market.) Since it is a dual purpose breed, it is not a good milk producer, and it does not grow quickly, especially as fed in the Gambia. Its outstanding characteristic is that it is a survivor. It is trypanosomiasis-tolerant, resistant to many other diseases, and a great forager. It is able to graze widely over rangeland which for 8 months of the year has low nutritional value and which many cattle would find unpalatable.

For this reason there is considerable potential to export breeding stock. In fact, in the early 1980's the export of breeding stock provided Gambian farmers a good market for their cull animals. (Culling the less productive cows increases off-take through increased reproductive efficiency.) The FAO reports that between 1980 and 1986, 7,750 Gambian trypanotolerant cattle were exported to Gabon and Nigeria for breeding stock. This number is greater than that for any other West African country during this period.[9] Subsequently, almost no Gambian breeding stock has been exported. The LMB should have developed this export market. Unfortunately, other countries which initially bought N'dama cattle from The Gambia, improved their own breeding stock[10] and have reportedly left The Gambia behind.

It is interesting in terms of the LMB import/export monopoly that other animals are imported and exported without the aid (or hinderance) of a marketing board. For example, private individuals import poultry from the U.K and the Netherlands. The Department of Livestock Services (DLS) merely certifies that the animals are disease free. Similarly, Gambian farmers export pigs to Cassamance in Senegal and to Guinea Bissau without any government imposed restrictions. In neither case is the LMB involved.

Ironically however, if a farmer wishes to sell skins or hides, he must wait until the LMB truck shows up to take these

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[9] FAO 67/2, "Trypanotolerant Cattle and Livestock Development in West Africa," Vols. I & II.

[10] For example, cull range cattle imported from the Gambia were ranch-reared and selected over time for growth rate.

livestock by-products. If the truck arrives to take them, they are sold to GAMTAN, located next to the Abuko abattoir, which processes them for export, especially to Greece. If the truck fails to arrive, the farmer has no legal option or recourse. Most farmers probably sell the skins and hides illegally in Senegal. Since GAMTAN cannot obtain nearly enough skins and hides from the LMB (because they fail to pick up what is there,) GAMTAN must supplement its supply by collecting its own skins and with purchases from Senegal. Some of the Senegalese skins and hides are no doubt purchased illegally from The Gambia.

It is not necessary to demonstrate that the LMB has in fact constrained private sector investment in livestock marketing. It is adequate for our purposes to point out that the potential for constraint clearly exists, that is, the legal monopoly functions as an effective barrier to entry. Consequently, the LMB monopoly should be eliminated to allow private enterprise to become involved in import or export as opportunities arise.

There clearly is a need for a private and/or a public sector group to explore the possibility of developing an export market for N'dama breeding stock. And there is a genuine need to somehow control EC beef dumping. [11] However, the LMB, as constituted and currently organized and operated, is <u>not</u> the group needed. Its continued existence, along with its attendant vested legal authority and monopoly powers, may inhibit the rise of another, potentially more effective organization that could meet the current livestock export marketing needs. Another agency of the GOTG, such as the DLS, could assume the import control responsibilities.

(b) LMB domestic monopsony

The LMB does purchase cattle, but insofar as middlemen purchase most cattle at the farm-gate, the LMB cannot be viewed here to have monopsony power. It has a relatively small market share (about 10 percent), not enough to affect the market. The LMB price is lower, and the payment terms are less attractive. The LMB functions as the buyer of last resort. Therefore, one would not expect to find quality cattle among those which could not be sold to private buyers and could only be sold to the LMB. Almost all commercial cattle sales are initiated by the private sector. There are enough cattle being sold and enough buyers and sellers to create an active, competitive market for cattle. The market could probably be made more efficient if sellers had better market price information. However, given the dominant

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[11] This statement is not meant to imply advocacy of tariffs or other economic restrictions to trade. If beef exports are to be limited, they should be limited for non-economic reasons, such as meat quality reasons.

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role of the private sector, the LMB cannot be viewed as a monopsonist.

(c) LMB domestic monopoly

The LMB operates the Abuko abattoir through which all inspected meat destined for the greater Banjul market passes. Earlier the Banjul abattoir and several slaughter slabs operated in the area, but it was agreed that it would probably lead to a better marketing situation if these were consolidated. The consolidation is not part of the monopoly per se, and this arrangement does not appear to be the source of any marketing inefficiencies.

By contrast the LMB's operation of the abattoir is generally regarded as highly inefficient, and many have suggested that it should probably be divested. The role for government (e.g., DLS) is in the regulatory areas of marketing, e..g., meat inspection and grading and animal health and welfare. The logical domain for commercial livestock marketing is the private sector, and the government apparently agrees and is open to offers.

The abattoir was originally built with funds donated by the British Overseas Development Organization. Through gross mismanagement, well documented in the MDI (1991) report, the enterprise incurred huge operating debts and allowed the equipment to fall into disrepair. In the late 1980s about $500,000 was invested to upgrade the facility. Currently, some argue that more money should be invested so that the enterprise could be sold. However, this up-grading of the facility in order to sell it is not necessary. Most firms interested in acquiring the business would prefer to reorganize and up-grade according to their overall business strategy. They would be particularly disinclined to have a government agency decide what would be most profitable for their firm. The main prerequisite for divesture would be to revoke the original enabling legislation. The LMB's liabilities would also need to be dealt with.

Hauling live cattle from the production end of the country to the consumption end (the Banjul-area market) may appear highly inefficient. There are slaughter slabs throughout the country, but these are for preparing "hot" meat for local consumption. It might appear economic to develop an abattoir in Soma. With the slaughter facilities of the Abuko abattoir in Soma, cattle could be slaughtered and inspected in Soma and the carcasses (44 percent of the liveweight) could be shipped directly to butchers in the Banjul area. Transaction costs might be reduced and marketing margins perhaps narrowed. This marketing system unfortunately would not likely meet with great enthusiasm from the butchers because they would no longer be able to select meat using their well developed skills. It would introduce higher technology, such as refrigerated trucks for transport and

refrigeration plants at the destination. Organizational issues, such as inventory control, would also become important.

The current system is rudimentary, but it is a relatively effective and efficient marketing system. (The weak link in the system is the operation of the abattoir.) In its simplest terms, cattle buyers purchase cattle from farmers up-country. Surveys reveal that both parties know and trust each other, and both parties feel reasonably satisfied with their dealings. For Banjul area sales the buyer transports the cattle to the Abuko holding yard. Depending on the demand and supply in the Banjul area and the quality of the cattle, the cattle may remain in the yard for one day or up to a month. Depending on how the buyer cares for the animal they could lose or increase conditioning. One can think of the holding yard functioning somewhat like the feedlot in a more intensive system.

Local butchers come in the afternoons to purchase cattle. The butcher can accurately estimate the amount of meat he can sell from any particular animal, so he knows what he can pay for each animal. The cattle dealer already knows what he has paid for the animal and for the transport of the animal, so he knows what he must receive from the butcher. When a price is mutually agreed upon, ownership is transferred. The identified animal is moved to the abattoir and slaughtered that evening. The meat is delivered or picked up in the morning. There is no refrigeration; all production is "hot beef" for relatively rapid sale.

The fact that beef for Banjul is slaughtered at Abuko probably has little overall effect on meat prices or consumption, except insofar as there is no refrigeration. The limitation on consumption is the fact that the market is strictly a "hot" beef market. "Hot" markets, whatever the type of meat, are always more constricted than markets which trade in refrigerated or frozen meat. However, the slaughter facility is operating below its full potential, and a more efficient operation might well increase throughput. The slaughtering cost is currently low, less than 4 percent of the retail cost of an average animal. The abattoir charges from D65.00 to D80.00 per animal. If the average animal yielded about 100 kg of saleable meat, and the slaughter fee were D80.00/animal, the cost would be D0.80/kg. With an average retail price of D24.50/kg, the slaughtering represents = .8/24.5 * 100 = 3.3 percent of the retail price.

Divesture would almost certainly increase throughput efficiency. However, the effect on the price for the abattoir services is indeterminant. This improved volume and efficiency may lead to reduced costs. Alternatively, the current cost may be under the new cost of doing business to a degree that, in spite of increased efficiency and volume, costs may need to be

increased. Farmers and butchers would accept an increase in price if the quality of service were increased proportionately.

Divesture would not necessarily have a significant direct impact on off-take. If a new owner found it necessary to increase the cost to the user, consumer prices may rise, and as will be discussed below, Gambian meat consumption is very sensitive to changes in the consumer price of meat. Reduced consumption would lead to lower farm-gate prices, but these lower prices would not be reflected in equally reduced off-take. Middlemen and butchers are very much aware of the price sensitivity and the competitiveness of their industry, and consequently, they may be prepared to absorb slight slaughter cost increases thus dampening the price elasticity effect.

5. The Marketing Margin

In order to analyze the marketing margin one needs to consider farm-gate and consumer prices. The farm-gate price from private cattle buyers for liveweight cattle is approximately seven dalasis per kilogram (D7.00/kg lwt.). The farm-gate price from the LMB is less, approximately D6.00/kg lwt. There are currently two grades of beef available to the consumer: "steak" and "meat & bones." The consumer price is approximately D27.00/kg for steak and D22.00/kg for meat and bones. If we assume that the ratio of steak to meat and bones is about 50:50, the weighted average consumer price is D24.50/kg. If we further assume that 44 percent of the liveweight is available after slaughtering and butchering the animal, the effective cost of the meat is D15.91/kg (i.e., 7.00/.44). The margin per kilogram for the middleman, the slaughter facility, and the butcher would be D8.59 (24.50 - 15.91), or about 35 percent. This margin is moderately low for value-added agricultural products. (It is interesting to note that using the lower LMB farm-gate price the margin is of course higher at D10.86/kg or about 44 percent, but it is still lower than would be expected.)

Clearly, there is no free-market intervention or policy that could narrow this margin. The unusually narrow margin indicates that the industry is extremely competitive. Furthermore, the private sector is more competitive than the LMB. The private cattle buyer provides a substantially better return to the farmer, and therefore about 90 percent of all producers sell to these buyers. In conclusion, given the foregoing observations and assumptions, there would not appear to be any marketing interventions that could increase market efficiency to the extent that off-take would be increased. A number of factors contribute to off-take rate, but in the Gambia they derive almost entirely from livestock and grazing management policy and practices rather than livestock marketing policy.

6. Price Elasticities

It has been widely believed that the LMB had monopoly power to extract excessive prices from consumers and monopsony power to obtain cattle from farmers at a less than competitive price. Similarly, the concern has been raised that non-LMB cattle marketing margins were excessively large. If one or both of these situations were to exist, the narrowing of these margins would likely do two things. First, narrower margins would lower consumer prices and increase demand for meat; increased demand would increase farm-gate prices. Second, it is postulated that higher farm-gate prices would increase the supply to the market, i.e., increase off-take. This scenario would likely be played out, if in fact these excessive marketing margins existed (which as we have seen, they do not) and the appropriate demand and supply relationships existed. Demand analysis would support the hypothesis regarding the likely economic effect of lower consumer prices and higher producer prices.

The relationship of concern in regards to demand is that between consumption and product price (price elasticity.) Price elasticity of demand measures the percent change in consumption expected from a one percent change in price. The same logic applies to the effect of producer price and product supply. It is clearly beyond the scope of this analysis to empirically develop the elasticity coefficients. It is enough for our purposes to observe the nature of the fundamental relationships, that is, whether the coefficients are greater or less than 1.

(a) Price elasticity of demand:

Given the very low incomes of consumers (approximately $380/year) and the availability of close substitutes for meat, such as fish, one would expect consumers to be relatively sensitive to any increase in the price of meat; that is, to substantially decrease consumption of meat in response to a relatively small increase in the price of meat. This situation was observed when Banjul meat prices increased with the devaluation of the dalasi in the mid-1980s. (This could also be viewed from the perspective of income elasticity of demand [12] if one wished to consider the devaluation as equivalent to decrease in income.)

Similarly one would expect to see consumer demand for meat increase with a decrease in price. Since monopoly is not a characteristic of the Gambian beef industry and marketing margins do not appear to be excessively large, there does not appear to be an opportunity to restructure the market such that consumer

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[12] Income elasticity measures the expected change in consumption from a one percent change in per capita income.

prices could be lowered. However, if the government were to announce a limit on the price of meat which effectively lowered the price to the consumer, it would be interesting to observe whether or not this action would increase beef consumption.

(b) Price elasticity of supply:

For reasons already cited, mainly that the market is restricted to "hot" beef and there is not a prospect of widespread refrigeration, it is unlikely that the market can be restructured in such a way as to increase consumer demand and in turn increase producer prices. Demand is already high, but without refrigeration, this demand will not be satisfied. With refrigeration, demand would be satisfied and prices might decrease if increased demand more than compensated for increased costs of refrigeration. But if farm-gate prices, for whatever reason, were to increase significantly, for example, through a government subsidy,[13] we would expect supply to increase as producers did whatever necessary to provide animals.

But since there are very few cattle not being marketed already, the degree of elasticity is unclear. This is to say, the coefficient would be greater than one but perhaps only slightly greater. The most likely source of increased supply would be the most unproductive cows, cows which in a more intensive production system would have long ago been culled. There simply is not a surplus supply of young male cattle. This increase in off-take would likely reduce the size of the national herd in the short run. But in the long run, all else equal, the herd size will probably return to its current, fairly stabilized level. The only way to increase off-take in the long-run is to improve grazing management (including animal health).

Depending upon how producers perceive a price increase, they may choose to adopt improved grazing management practices and increase the size of the herd and thus probably increase off-take. This increase could take the form of increased animal numbers or increased weight per animal or some combination of the two. The net effect in either case is increased meat and milk production.

It is important to recognize that agricultural producers are relatively insensitive to short-term price changes and a price fluctuation would have only minimal, short-term impact on off-take. Agricultural producers operate in a purely competitive market and are therefore inherently price takers. With long

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[13] As with the earlier reference to a hypothetical situation of import tariffs, reference to subsidies here should not be misconstrued to imply endorsement of this interference with the free market.

production cycles, such as those associated with cattle production (especially Gambian cattle production), producers are unable to respond effectively to price changes in the marketplace. We therefore must look to the livestock management issues involved to explain significant changes in supply.

A higher price for beef, if it were perceived to be an upward shift in the price of beef, i.e., a long-range price increase and not merely a cyclic aberration, would theoretically encourage existing producers to expand and new producers to enter the industry. Producers may choose to organize and operate an integrated, improved grazing system, such as the UNDP project at Dankunku. In this case, in the long run, a price increase would lead to an increase in the national herd size, not a decrease as originally envisioned in the PAIP. In fact, the Dankunku experience with the improved grazing management system led to a 25 percent increased carrying capacity, an overall increase in total cattle numbers, and presumably an increase in the off-take number.

While the foregoing price increase scenario is the most likely, it is not necessarily the only one. For example, cattle numbers could remain the same, but beef quality and yield per hectare could increase leading to increased farmer net income but not increased herd size or price. Or as suggested earlier, we could observe some combination of these possible outcomes.

The effect of a price decrease is more problematic. Microeconomic theory suggests that a price decrease should eventually lead to decreased production. In the short run, producers may hold on to the product in hopes of a price increase. If the lower price persists, the product will probably have to be sold at a loss. Producers with alternatives may exit from the industry. Producers who remain will probably try to increase efficiency by lowering costs. However, as profit margins per cow decrease individual producers may increase cow numbers to maintain the same total profitability. The latter response, while it may help an individual survive in the short run, will in aggregate seriously aggravate the national problem of range resource degradation.

B. Sustainable Grazing Management Policy Reforms

The key constraints to more sustainable use of the pasture and range resources are:

(1) inadequately distributed non-saline water,

(2) continued range land burning, and

(3) agronomically depleted range land.

1. The "Conservation" Focus

We have seen how the off-take paradigm can misdirect one's attention away from the management of agricultural and natural resources to the livestock marketing system. It is interesting that whereas the "off-take" terminology dominates whenever marketing is being analyzed, the term is not mentioned in regards to devolution policy or village-level interventions. The key word here becomes "conservation" of the grazing resource. This change in diction does not however indicate a paradigm shift. Ostensibly the section is concerned with grazing land-use policy, specific technical components of a sustainable grazing system and the economic feasibility of such a system. However, the emphasis on "conservation" rather than "sustainable use," as these terms are defined at the outset of this annex, suggests that the off-take paradigm problem remains.[14]

Conserving grazing resources by not burning is very important. Ironically however, failing to properly harvest the forage crop leads to an increased risk of brush fire. The only way to conserve the grass resource beyond a season is to harvest it. There are only two ways to harvest and store it: forage harvesting machines or ruminants. It is not clear from the PAIP whether conservation is an end in itself or only a means to sustainable utilization of the resource. The latter approach, grazing management, leads to more efficient production from each

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[14] It has been estimated that the national average stocking rate in the Gambia is 33 cattle per square kilometer of range land (i.e., 0.33 tropical animal units per hectare [0.33 tau/ha] per year.) It is unclear whether this calculation includes the utilization of thousands of hectares of marsh land pasture. The marsh land resource is an extremely important component of the overall grazing system, especially during the early dry season, and this resource can support about 3 tau/ha for about two months. In any case, the PAIP states that the .33 tau/ha stocking rate is too high. The implied solution to the problem is to reduce the pressure on the land by increasing off-take.

hectare of land. Much of the grazing land needs regeneration through more efficient management rather than mere conservation.

Care must be taken not to oversimplify the livestock/grazing resource problem by focusing on conservation and off-take. Simply reducing the stocking rate (i.e., increasing the off-take) will not address the problem of environmental degradation, especially if the degradation has already occurred. Cattle numbers per se are not the problem; the problem is rooted in grazing management. In some locations range land is under-stocked and in other areas it may in fact be overstocked, given the current level of grazing management. Some argue that cattle numbers have about stabilized because on average the stocking rate is intuitively perceived by graziers to be about right or at least incapable of supporting more animals. The total number of animals then, is what would be expected, given the total land area available and the sub-optimal level of management.

2. Limited Access to Grazing Land

The state "owns" all land in the Gambia; individuals and organizations obtain access to land use by in effect leasing it from the state. The 1946 land use legislation places authority at the district level. However, in response to the recent rapid growth in the Banjul area, 1991 legislation appears to be shifting authority for land use in the Banjul area to the central government. Land use planning is in flux, with some in the government moving toward increased centralization while others favor a de-centralized approach. At this time the 1991 legislation does not apply to up-country land use. Existing district control of grazing resources needs to remain at the local level, although all grazing land need not necessarily remain in commons. Existing local control needs to be shifted primarily to livestock owners to enable them to provide longer term investment in the resources. Existing central government control of grazing resources (e.g., collection of head taxes) needs to be reformed to benefit the livestock industry.

Useful grazing resources are diminishing. Poor grazing management has depleted much of the range land. At the same time, the reserve of land available to grazing is decreasing because of increased pressure on the land. For example, the grazing reserve has been significantly reduced by double cropping of rice in marsh lands previously used for grazing.[15] Grazing management must be significantly improved in order to compensate for the dwindling resource.

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[15] Some may find double cropping of rice to be an interesting production exercise, but its economic worth needs to be analyzed carefully.

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Responsible local control of the grazing resource would provide the incentive and, given adequate financial resources, the ability to pursue proper grazing management. Water could be distributed properly, range burning could be reduced almost to zero, and depleted range land could be restored. A case in point is the UN Development Project at Dankunku. It was necessary for the UNDP and the Livestock Owners Association (LOA) to negotiate with the district to obtain the permission required to implement the grazing management demonstration project. Having implemented an obviously successful program in the Dankunku district, it will be easier to negotiate the required terms with other districts as the project moves into districts to the east. National-level policy enhancing these efforts at devolution of authority over use of the grazing resource, would facilitate implementation of proper grazing management.

3. Devolution of Grazing Authority

When a farmer has ownership of livestock but not of the range resources upon which livestock depends, his/her attention will inevitably be focused on cattle. When some degree of "ownership" in the land is provided, attention can be shifted to crop production and crop management (i.e., to grazing), providing a more balanced livestock production system. Local Livestock Owners Associations (LOAs) should control the use of grazing fees and head taxes, and these should be used largely for grazing resource management. If central government head tax revenues were allocated to development and maintenance of the infrastructure required for improved grazing management, the fees and taxes could make a significant financial contribution to overall system sustainability.

The absence of local livestock producer control over grazing resources is a constraint to sustainable livestock production, that is, to improved grazing management. Without user control there is not an adequate sense of "ownership," and therefore an inadequate sense of grazier responsibility to manage the resource properly and an inadequate sense of urgency by local chiefs to enforce proper management. One of the most important factors in sustainable grazing management is the ability to prevent or extinguish range fires. With local control of the grazing resource, as demonstrated at Dankunku, effective range fire extension education programs can be developed and implemented. In conjunction with education, strict anti-burning laws with heavy penalties can be implemented and enforced to help prevent fires. Fire breaks can be established and maintained, and fire watches and fire brigades can be organized.

The key to successful implementation of these burn policies has been the resident grazier's sense of ownership, generated in part from obtaining the right to impose grazing fees on the

10,000 migrant cattle that use the local grazing resource for part of the year. (Both the migrant 10,000 head of cattle and the resident 10,000 head of cattle pay the annual state head tax of D3.00.) The UNDP Project obtained this extended land use right to impose a grazing fee through direct negotiations with the District. The 1946 land law gives the district, not the state, control over grazing land use in the district. Devolution implies that the state controls grazing rights. Devolution per se cannot therefore be directly implemented at the central government level. However, devolution could be indirectly implemented at the national level through tax reform.

4. GOTG Taxation and Land Policy Reform

The ANR Program should call for a review of the government's policy on the cattle head tax. Currently, the government collects the head tax but does not use the revenue for the livestock industry. Collection of the head tax has been delegated to the Area (District) Councils. As noted earlier, grazing control is also vested in the District, and Districts have grazing commons. Districts need to be prepared to lease commons to producer groups (LOAs) to enable them to improve the grazing resource and to charge grazing fees. The District government should eventually provide LOAs access to a portion of the head tax revenues to implement approved grazing management plans. District governments should also allow LOAs to "lease" commons, that is, to cooperatively enclose and manage part of the grazing commons.

5. Leasing Grazing Commons

(a) A grazing lease arrangement

A grazing lease system is conceptually simple. The lease should be with the district and a community-based association of cooperative producers ,i.e., an LOA, affiliated with a relatively small region (a village, a group of villages, or a district.) The local governance can be by a committee composed of elected producer members and a few de facto members of the community (e.g., chiefs).

The main lease components are the length of the lease and the right to assess grazing fees. The lease needs to be long enough to encourage major capital improvements, such as water and fencing for agronomic regeneration. However, it needs to be open to periodic outside review of the overall grazing management plan. One possibility would be a term of about fifty years, subject to presenting an acceptable grazing management plan. The lease could be terminated early if the LOA failed to

satisfactorily pass a periodic review (about every five to ten years) of its grazing management. A major review could come at the end of fifty years to reassess the district's land use plans.

Revenues from the central government's head tax could fund the periodic external reviews of local grazing management. The locally assessed grazing fee proceeds must be used for maintenance of productive assets (e.g., fencing, fire breaks, agronomic regeneration, and the water system.) Details of the grazing fee structure should be reserved for the LOA. Transients should be charged a grazing fee that reflects usage.

(b) A grazing commons lease pilot project:

One objective of the Dankunku Project is to demonstrate the potential for improving grazing management. In the light of six years of experience from this project, further testing of the local control concept, in the form of another pilot project, is not necessary. The single most important element in Dankunku's success appears to be the broad commitment of the community to the Dankunku vision. The sense of "ownership" which emerges from control of the grazing resource appears to be a prerequisite for implementing effective grazing management. However, it is this sense of individual and community involvement that is critical, not devolution per se.

If the beneficial effects of devolution can be achieved within the system as it is, devolution policy reform may not be critical at this time. Devolution allows but will not in itself bring about the kinds of improvement seen at Dankunku; that is, the benefits of devolution are a necessary but not a sufficient condition for improved grazing management. Start-up capital investment is required to develop the essential social environment and productive resources. Adequate initial investment, the other necessary but not sufficient condition, together with devolution can bring about improved grazing management.

6. <u>Economic Sustainability</u>

(a) High initial capital investment:

An unjustified criticism of the UN project is that the initial capital investment required for fencing, water, and processing plant was high. A financial and economic analysis of the one million dollar project is scheduled to be completed in mid-1992. It will probably reveal that the costs were completely justified by the benefits and that the investment was reasonable and worthwhile. Nevertheless, the size of this initial

investment could preclude others from attempting a similar enterprise without a donor. The project is currently researching ways in which the initial cost might be reduced. The fundamental question of whether or not the interventions (including the processing plant) are economic, rests in part on determining whether or not the start-up costs could have been repaid.

The purpose of development funding should be initial capital investment and initial operating costs. If the project is to be sustainable after the project ceases, it must continue to generate enough revenue to cover operating costs, fixed costs, including depreciation or capital replacement, and an acceptable return to the producers managing the enterprise. There are basically two sources of project funding external to the producer association: donor or credit. If the project is funded wholly or partially with credit, gross revenues will also need to cover debt service on the amount borrowed.

Dankunku's initial funding was provided through the UN. The project is acknowledged to have been a successful demonstration of improved grazing management. Moreover, the project, which will not be externally funded after mid-1992, appears to be sustainable. The main reason it is sustainable is that the participants recognize that through their participation, they are substantially better off economically. As a result of the project, as noted earlier, burning has been minimized, forage quality and quantity is greatly improved, and adequate water is available for the animals. The existing cattle operations are more productive, and a number of people who could not previously afford cattle, have now been able to own them. Revenue for general overhead costs will be generated by grazing fees, per head taxes, rental income for overnight accommodation in a project-built guest house, and dairy product sales from the project-built Niamina Dairy (Beyang Yirwa Kafo.)

(b) On-farm value-added revenue:

It has been stressed that broad community support for the project is critical. Included within this support but perhaps not quite as evident, is the importance of the benefits derived from value-added activities. A profitable on-farm enterprise can add value to a product already produced on the farm, thus generating outside cash income and providing the involved farmers a better, more reliable price for their raw product. Yogurt production is a good example.[16]

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[16] Yogurt production at Dankunku is profitable. The Niamina Dairy purchases milk from farmers for D2.50 per liter (D2.50/l). The cream is separated off for other production, and the lower fat milk is then pasteurized, live culture is introduced, the

Other development projects, such as the ANR project, should include revenue generating value-added components. If the business plan for the value-added component of the project can demonstrate an acceptable cashflow and NPV, development credit can be justified and may be available from a cooperating partner. An appropriate source for external investment would be the African Development Bank.

In addition to a reliable business plan, the bank, donor or fund will likely want to see the requisite expertise in place. The preliminary education efforts could be funded by the ANR project (see next section) and the capital investment for the enterprise could be funded with credit or a grant from a cooperating partner.

7. Future Research Needs

In addition to reforming policies regarding marketing efficiency and tax policy, national policies need to be developed to address larger critical issues such as population growth and land-tenure. Ultimately, these issues must be confronted and resolved if sustainable grazing is truly to be realized. While these needs are perhaps beyond the scope of the ANR project, the project does provide for up to 36 months of short term technical assistance (TA) for policy-oriented studies and in-country training (training in addition to the environmental education aspect of the project.)

A number of shorter studies and TA consultancies would be supportive of efforts to increase livestock marketing efficiency and grazing resource management. Short consultancies could satisfy the following research needs:

(1) The DLS requires guidance on how to upgrade its regulatory role as the LMB is dismantled.

(2) The GOTG needs advice on how other countries, for example, Senegal, privatized their state or parastatal livestock processing and/or marketing institutions.

(3) LOAs generally need (a) advice on which on-farm value-added enterprises would be feasible for their specific situation, (b) help developing business plans and

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milk is put into small containers, and placed in a warm room where the culture transforms it into yogurt over night. The finished the product is then delivered and sold in the Banjul area for approximately D20.00/l. There is considerable potential for expansion as demand substantially exceeds supply, and in fact the Dankunku plant is planning to build a second facility.

business operating procedures, and (c) training in how to setup, operate, and manage the enterprise.

(4) Specific LOAs without a donor such as UNDP, may need help designing an appropriate, limited grazing management plan, obtaining funding from the LDF, and TA in managing the grazing resource more effectively. However, in the long-run it will be impractical for the ANR to provide on-going TA to specific LOAs. The expertise needs to be developed in the DLS.

C. Grazing Management Interventions

1. The Dankunku Model

The Dankunku Project is an excellent demonstration of improved grazing management. Many of the components are applicable throughout the country. The purpose of the six year project, which will be concluded in June 1992, was to improve grazing management, both to increase actual production and to increase the sustainability of this higher level of production. They have successfully increased actual production and farmer net income. A large number of farmers in surrounding areas have visited Dankunku, and many of the improved practices are being implemented on the north bank. The UNDP is planning next to replicate Dankunku in the Fulladu West region.

The grazing system remains an extensive system, but it has been modified to become somewhat more intensive. One characteristically measures output from an extensive grazing system on a yield per hectare rather than per cow basis. Per hectare income has increased in two ways: the number of animals which could be supported on the land area increased by about 25 percent, from approximately 8,000 head to just under 10,000, and the value of milk production was enormously increased by on-farm commercial production of yogurt, cheese, ghee, and cream. With increased carrying capacity, some who owned cattle increased their herd size. But more importantly, many who never owned any cattle were able to become owners. The main management changes were based on dramatically improved animal nutrition through (1) controlling range fires, (2) providing adequate, properly dispersed water, and (3) deferred grazing.

As noted earlier, the UNDP is about to evaluate the economics of the project. However, even a cursory review of the key cost figures and the obvious benefits, suggests that the project will likely prove to be an economic success story. The total expenditure, including technical assistance, for the six year project is reported to be $1,069,000. During the project 3,150 hectares were fenced for deferred grazing. Fencing

consists of locally produced fence posts and a number of strands of high tensile wire or, in some cases, barbed wire. Fencing costs averaged $2.65 per hectare fenced. Labor for fencing and for fire break preparation was paid through a food (rice) for work arrangement. Six paid team leaders provided management of the food-for-work labor. Cash costs for fencing totalled $8,348.

Live fences could possibly replace the conventional post and wire fences, but they would not control cattle until the plants were well established. One could use standard fencing to control the cattle initially and simultaneously plant the live fence. In about three years the live fence would be well enough established that the wire fence could be removed and re-used in an area to be utilized for deferred grazing. This fencing procedure would spread the fencing costs over a larger area and conserve trees used for fence posts.

The livestock watering system, critical for any improved grazing system, services 10,000 local cattle and 10,000 seasonal migrant cattle. It is based on three bore holes with pumps and pipes to deliver the water to troughs. The construction cost for each of the three units was $28,000, for a total of $84,000.

The project also provided infrastructure development, such as roads, and constructed a number of buildings. Buildings include (a) a building which houses the 121-member livestock owners association general meeting rooms, a farm management office, and a secured food for work grain store, (b) a large guest house to accommodate the numerous visitors to the demonstration project, and (c) the dairy processing facility. The dairy facility includes a pasteurization tank with a boiler water heating system, a cream separator, refrigeration powered by photovoltaic cell electrical generation system, and an office. Thapa (1992) provides the design details of the entire dairy complex and a comprehensive description of the operations, including a breakdown of costs of production.

It is likely that these increased production levels can be sustained, although it is doubtful that these improvements could have been realized without external initial capital investment and education. The project achievements will be sustainable for two reasons: a supply of good labor from the core of 121 strongly committed farmer participants; and financial resources from a number of revenue generating mechanisms. Local commitment provides the source of maintenance labor. As farmers recognize the benefits accruing to them as active participants, the food for work arrangement is phased out. Fences and fire breaks, for example, were constructed by food for work but are now maintained by volunteer efforts.

The importance of on-going income generation to project sustainability, cannot be over-emphasized. Dankunku's two major

sources of revenue are on-farm value-added dairy profits and migrant user fees (i.e., grazing fees.)

The Dankunku practices can be effectively replicated if they are viewed as components in a grazing system. Practices taken piecemeal without regard for their interactive effect, cannot be expected to have the dramatic and lasting impact observed at Dankunku. For example, fencing will protect a range area from grazing, but if it is already degraded, there will be little improvement in grazing quality, probably not enough to justify the significant investment in fencing and on-going fence maintenance. Some grazing system components are sequential. For example, milk production cannot exceed home consumption requirements until cows receive adequate amounts of water. Therefore, commercial dairy production is dependent upon installation of the water system infrastructure.

However, substantial progress can be achieved if a concerted effort is simultaneously made to improve the agronomic aspects of the grazing resource. For example, if one were to plant appropriate legumes and grasses at the beginning of the rainy season and then use the fencing to protect the establishment of the planting and subsequently to control the graze-down, carrying capacity could be increased about 25 percent. This immediate return from the grazing improvement can easily justify the annual agronomic costs and the amortized fencing costs. In the long run, the grazing resource will have been conserved. By contrast, degraded pasture which is not improved will support fewer and fewer animals; the increasingly overgrazed land will increasingly consist simply of sand, open to further erosion.

2. An Agro-silvo-pastoral System

The Mixed Farming Project was essentially a small-scale crop farming agricultural project which included some animals, and the Dankunku project is essentially a large-scale range management project. What seems to be lacking is an approach suggested by the term, "agro-silvo-pastoral," a system which integrates livestock and crop farming with forestry. Sumberg (1988) reported that the literature abounds with recommendations that the Gambians need to start designing and implementing a "true" mixed farming approach. Various authors advocate different truths.

In fact Gambian farmers have already developed a mixed system, but those with the "common understanding" of the livestock industry have failed to recognize the nature of the indigenous integration. The off-take paradigm prevents observers from perceiving the underlying agro-silvo-pastoral pattern that already exists. It may be necessary to go beyond the previous projects to build upon the existing inclinations of the farmers.

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The German-Gambian Forestry Project (GGFP) seems to have somewhat inadvertently discovered that this change in course is the direction in which to head. When they initially approached the people in a village that was a prospect for a forestry effort, the first question the villagers asked regarded the fate of their cattle. Without primary concern for where the animals fit into the overall scheme, the forestry work was probably not going to progress and was certainly not going to be sustainable. The GGFP has not yet concluded where best the cattle fit or how best to manage them, but it appears to be asking the right questions.

Particular interventions of the Mixed Farming Project, the GARD Project, and in particular, the Dankunku project, appear to offer productive improved management possibilities. Practices will often need to be modified to accommodate site-specific limitations or advantages, but the required components of a sustainable grazing system are widely applicable.

III. RECOMMENDATIONS

A. Marketing Policy Reforms:

1. Repeal the Livestock Marketing Act of 1975

There are two distinct components to the LMB's legal monopoly: the import/export monopoly and the Abuko abattoir. The import/export monopoly right is not currently exercised, and there are no prospects that the LMB will resume exporting, although the potential to export breeding stock remains high. The abattoir is functioning, albeit inefficiently. While there are two aspects to the monopoly power issue, they cannot be dealt with separately. Repealing the act would eliminate both monopoly situations, but the effects will differ.

(a) Eliminate the Import/export Monopoly

Elimination of this legal monopoly would cost very little and could be accomplished relatively quickly and painlessly because no employees or assets and liabilities are involved. This monopoly is in effect a barrier to entry for a firm with the capital and experience to begin exportation of breeding stock. The benefit of eliminating the monopoly is to lower the entry barrier. However, one should not expect that simply lowering this entry barrier will lead immediately to a firm entering the industry to resume exporting. Therefore, there will not necessarily be any immediate economic benefits or any indicators to measure. If however a competent firm did enter, it would seem reasonable to expect a significant, measurable economic impact.

(b) Privatize the Abuko Abattoir

This Annex is in total agreement with the MDI Consultancy Report recommendation that the Marketing Act be repealed. However, there is fundamental disagreement regarding the subsequent long-term operation of the Abuko abattoir. The MDI report recommends keeping it under government control by retaining ownership. It is a fallacy to think that control comes necessarily or solely from ownership. Ownership can be private and government will retain control through regulatory powers of the DLS. The DLS, which is housed almost next door to the abattoir and will be a constant presence through its on-going meat inspection role, can wield control through the threat to revoke the license to slaughter.

Repeal of the Marketing Act will eliminate the LMB and will thus set in place the necessary condition to remove the GOTG from its inappropriate involvement in slaughtering. However, pending full privatization, the Abuko abattoir will temporarily need to continue functioning in the same manner but with an interim status, presumably under the Companies Act. There will necessarily be a transition from operations under the LMB to operations as a wholly independent firm. This transition is the privatization process. Two things must occur during this process: private investors must assume majority ownership of the abattoir, and the DLS needs to determine what its regulatory role should be. The GOTG may also wish to work during this period to evaluate the best means of divestiture.

It is not feasible simply to cease slaughtering operations. The services are neither what they should be nor what they could be. The abattoir is nevertheless an absolutely essential component of the commercial beef production infrastructure. To remove it altogether would be an unmitigated disaster for the industry. The GOTG will continue to operate it while making a concerted effort to identify a potential private operator.

The ANR NPA conditionality is to repeal the Livestock Marketing Act of 1975. Repealing the Livestock Marketing Act of 1975 and consequently the eliminating the LMB is neither a new nor an unpopular idea. If the LMB is not eliminated immediately, it appears doomed to die a slow death. The LMB's ultimate demise could be hastened by the ANR NPA conditionality. Dismantling the LMB is apparently on the World Bank's agenda.[17] It is not clear

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[17] "During the next three fiscal years, the Government will ...continue to withdraw from productive and service activities of potential interest to the private sector. In this context, the divesture program for 1992/93 includes ...the transformation into a limited liability company of the Livestock Marketing Board (LMB), accompanied by a repeal of the Act giving LMB a monopoly

if or how the Bank intends to implement this transformation. An ANR NPA conditionality may be an expedient means to achieve this end.

The eventual privatization of the abattoir will benefit both consumers and producers. Consumers will have better quality meat because the DLS will be better able to regulate a private firm than another government agency. Lacking a refrigerated or freezer trade, Gambian meat supply is totally dependent on daily throughput of the abattoir. Increased efficiency and throughput will lead to an increase in the supply, perhaps alleviating the chronic undersupply in the marketplace. With better quality meat, a greater, more reliable supply of meat, and proper cold storage for meat, the relatively lucrative hotel and expatriate markets could be supplied. This situation would reduce imports and reduce foreign exchange expenditures. There should be mmediate improvements, but the real economic gains would be onger term. They will come as producers are better able to move ore meat through the marketing channels.

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in meat trading." (Page 23, "Economic and Financial Policy Framework for 1992/93-1994/95," March 1992.)

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B. Grazing Resource Policy Reform

1. Institutionalize Devolution through Head Tax Reform

The 1946 land law locates responsibility for grazing rights at the district level. Traditionally these rights have been commons grazing rights. An annual head tax (currently about D2.50/head, but apparently ranging from D2.00 to 3.00/head) is collected by the Area (District) Councils, but this revenue is not currently meant to support the livestock industry. Until Dankunku, user fees (in the form of locally collected grazing fees) did not exist.

Grazing fees were implemented for on-going support of local grazing management. The grazing management improvements of Dankunku are based on long-term capital investment which require control of the traditional commons rights. The Dankunku Project has had to negotiate with the district in order to obtain a lease-like commitment to transfer management control to the project. In essence this transfer is a transfer of traditional, commonly held grazing rights from the community as a whole to the livestock owners association. The transfer was deemed necessary in order to justify the capital investment by the project and to allow the livestock owners association to collect grazing fees for on-going maintenance.

Since the transfer of district-level property rights (i.e., grazing rights) is not a central government issue, there does not appear to be a place for a proposed ANR NPA conditionality regarding devolution. However, the central government has an indirect role in grazing management through its taxation laws. Livestock producers justifiably feel this taxation activity is currently abused and greatly needs to be reformed. The central government could play an important role in improving the grazing resource if the revenue from the head tax were to be transferred in part to livestock owners' associations.

Therefore, the ANR Program should support a study of the legislative and other reforms required to transfer revenue from the cattle head tax to the livestock industry for development purposes such as improved grazing management. The mechanism that should be implemented is relatively simple. The head tax, to be collected as usual, would be allocated to the community from which it was derived (as in the past) <u>and</u> to a "Livestock Development Fund." The possibility for the creation of this fund came about in 1991 with endorsement by the President of The Gambia during his "Meet the Farmers Tour," and subsequent approval by the Permanent Secretary for Finance. The UNDP has taken a lead in support for its creation and has agreed to help fund it. The UNDP however would like to see the fund emerge as a cooperative effort. The DLS has agreed to contribute to the fund

a portion of the fees collected for its services. The fund would be administered by a committee that had representation from the livestock industry.

The committee would allocate funds to various grazing resource projects throughout the country. Allocation would be to the local Livestock Owners Association (LOA.) LOAs already exist structurally but are at present largely defunct due to lack of funding. Funding would revitalize them and in effect shift power to them. This reform would in effect be a devolution of control over local resource development and management.

If studies confirm that partial transfer of the revenue from the cattle head tax to the livestock industry could be beneficial, the necessary legislative revisions to make this transfer possible could be made explicitly part of the general conditionality (no. 11; July 1996) regarding revision of legislation in support of local control of resources.

- Upgrade the Range Resource Management Unit within the DLS

A Range Resource Management Unit (RRMU) exists in the DLS. The unit is similar in structure and intent to the Soil and Water Management Unit within the Department of Agricultural Services. The unit currently consists of two range management specialists (one of whom is attached to ITC), but they will not likely be able to satisfy the increased demands for their services. A similar level of expertise needs to be developed in a number of individuals, perhaps two degree level and three diploma level specialists.

The purpose of the RRMU service is to teach producer groups how to manage their grazing resources, not to provide the management per se. This unit would be the point of contact for LOAs not part of a funded project such as the UNDP. It would also be the government agency through which a project such as the ANR Project could work to develop an integrated agro-silvo-pastoral system. And perhaps most importantly, an upgraded Range Resource Management Unit will help to assure the sustainability of the environmental enhancements introduced by the ANR Project.

3. Establish a National Educational Program on Range Fire Prevention

Design and implementation of a range fire monitoring, control, and policy enforcement strategy is a local (village or district level) issue. The central government could pass laws, but without local commitment it could never enforce them. An NGO working locally could effectively facilitate the strategic process. Education regarding the terrible loss from grass and

forest fires and the means of preventing them is a national need. The central government needs to provide comprehensive environmental education regarding the prevention of fires to conserve the nation's grazing and forest resources. Again, this need may not have to take the form of an ANR NPA conditionality if it is a part of the environmental education aspect of the project.

C. Village-level Grazing Management Improvements

It is premature to articulate specific village-level livestock interventions. First, technical interventions are to a considerable degree site specific. Second, project assistance is meant to be through NGO implementation. Even if it were possible to design a set of specific interventions a priori, to do so might make it more difficult to attract NGO interest and commitment. USAID needs to allow NGOs wide latitude in developing programs.

The following village-level interventions are recommended as a partial set of guidelines for NGOs. These components appear to be essential aspects for effective implementation of improved grazing management.

1. Consider Livestock as an Integral Component of an Agro-silvo-pastoral System

Villagers already consider livestock as an essential and integral component of the overall system of production. Donor agencies must recognize this fact, rather than minimizing or ignoring the livestock concerns of villagers. If the main thrust is livestock, as it is at Dankunku, this is less of a problem. But if a project's main thrust is cropping, gardening, or forestry, incorporating the livestock component is critical to the project's acceptance by villagers.

The ANR Project is fortunate to have the successful Dankunku Project as a model. However, it is not recommended that the ANR Project attempt to replicate this experiment. Rather, the ANR Project should build upon the Dankunku experiences. ANR livestock interventions should be viewed as a means of leveraging other sector efforts, such as those in forestry. A synergistic effect can be generated if the interventions are designed and implemented together. The UNDP as it phases out direct support for Dankunku, is already proceeding to replicate the project to the east of Dankunku. The UNDP has wisely chosen to replicate it in an area with Fula-owned, Fula-herded cattle, not in a contract-herded area where the very different objectives of the herdsmen would impede the implementation of another Dankunku.

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2. Implement a Zero-tolerance Burn Mechanism

By all accounts burning of grazing resources is the single greatest constraint to improved grazing management. Through an intensive educational program, Dankunku sensitized the entire community to the adverse effects of range burning. Simultaneously, Dankunku successfully designed and implemented a community-based system of monitoring and controlling outbreaks. Heavy fines are imposed on any one caught burning. Volunteers rotate shifts in a constant surveillance effort. If a fire is spotted, the alarm is quickly spread throughout the district with "talking drums." The fire control is based on neglected traditional fire fighting methods, including beating and setting back-fires.

In the past fires ravaged this area. Fires had been eliberately set through ignorance and accidentally set through arelessness. The normal response to range fire had been to flee he fire; the current response is to fight the fire. An ndicator of success is the fact that there have been no range ires during the past year. The turn around has not been chieved through a technological breakthrough. It has resulted from education and community-wide commitment to prevention and control.

Since burning is also a problem in forest management, the anti-burning efforts could be complementary if livestock and forestry are considered as integrated components of the same agro-silvo-pastoral system. Forestry and grazing together could share the local costs and efforts to develop a successful program.

3. Adopt Deferred Grazing

Deferred grazing involves fencing off a substantial grazing area to exclude cattle during the early wet season. This practice allows farmers to plant productive annual grass and legume species and allows the forage plants to become well established before they are utilized for feed. The practice of somehow fencing out or otherwise restraining the entry into cropping areas is common practice during the planting and growing time of year. What is different is the idea of treating the grazing resource like a crop. The benefits are great, but depending upon the fencing, the cost of deferred grazing can also be substantial. If the livestock are an integral component of an agro-silvo-pastoral system, the cost of the fencing may be jointly allocated.

Furthermore the benefits of deferred grazing will not be realized with fencing alone. The complementary practices, such

as seeding for pasture regeneration and cattle access to water while confined, are essential.

4. Provide Adequate Water

The Mixed Farming Project adopted deferred grazing, but the plots were very small and did not provide adequate water for the confined animals. The lack of adequate water proved to be a fatal weakness in the effort to improve grazing management. By contrast, the Dankunku Project made water a high priority, digging a bore hole and transporting the water, with diesel powered pumps, to properly distributed watering areas.

5. Develop an On-farm Value-added Component for Sustainability

The most likely livestock value-added business would be on-farm dairy processing, such as that demonstrated by the Naimina Dairy. There are probably similar value-added possibilities in the forestry area. (Perhaps the GGFP furniture making is relevant.) Intensive, hands-on education in adding value to existing products is primary.

In terms of dairy processing, education would be required in dairy management, cheese and yogurt production, sanitary milk handling, and mastitis control. Currently there is an effort to form a dairy processing NGO in The Gambia. If this NGO were formed, it would be ideally situated to take on this education and development component.

The GARD Project demonstrated that finishing sheep with higher quality feedstuffs, such as sesame cake, is very effective and profitable. As a result the price of sheep relative to cattle has increased dramatically. Whereas one cow could until recently be traded for five sheep, the ratio is now 1:3. Sheep and goat finishing is compatible with cattle raising because the husbandry skills are similar and the small and large ruminants do not compete for the same range resources. Smaller ruminants are particularly important to the economic status of women because there is a much higher percentage of women owning sheep and goats than of women owning cattle.

ANNEX L: IMPROVED PUBLIC SECTOR BUDGETING

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A. Introduction

Given the limited personnel and material resources available, the GOTG must ensure that its investments in the natural resources sector are used effectively. This requires the use of realistic, program-oriented budgets, the tracking of expenditures, and the measurement of performance relative to expenditure levels. At the same time, careful planning and budgeting is meaningless, if the ultimate allocation of funds to the ministries in not done in a timely manner and bears no relationship to the line ministry's budgets or funding requirements.

For an effort such as the ANR Program, sound budgeting by the implementing agencies and the sufficient and timely allocation of resources by the Ministry of Finance and Economic Affairs (MFEA) is particularly crucial. The ANR Program will not provide funds directly to support recurrent operational costs. These costs should legitimately be the responsibility of the host government. However, if the GOTG fails to provide adequate funding for fuel, travelling expenses, vehicle operation and maintenance, supplies and equipment, and so forth needed for implementation, the activities envisioned will not be implemented and the ANR Program will not succeed.

In order to ensure the availability, through the GOTG, of the required recurrent cost funding, the ANR Program will condition non-project assistance on: (1) the development of a sound program budgeting system within both the MNRE and MOA; and (2) an increase in the recurrent budget levels for specific MNRE and MOA programs related to the implementation of the ANR Program and the natural resources agenda outlined in the Gambia Environmental Action Plan. The amount of increase will be based on an independent analysis of funding needs to be carried out early in the project's life and will take into account recurrent cost support being provided by other donors (e.g. the World Bank ADP III Project and the UNSO support for the MNRE).

B. Structure of the MOA and MNRE Budgets

The GDP for The Gambia in 1990/91 was D2,689.4 million ($341.3 million). The GOTG's Estimated Expenditures for FY 1991/92 indicate a total budget of D775.3 million (approximately

TABLE 1: SUMMARY OF RECURRENT EXPENDITURES (in millions of dalasis)

	Actual 1985/86	Actual 1986/87	Actual 1987/88	Actual 1988/89	Actual 1989/90	Revised Estimates 1990/91	Estimates 1991/92	Percent of Adjusted 91/92 Est Budget
Office of the President	11.07	10.48	21.99	28.77	36.27	33.07	31.31	8.58
Legislature	0.52	0.43	0.57	0.90	1.38	1.54	1.65	0.45
Judiciary						2.54	2.79	0.76
Public Service Commission	0.08	0.06	0.08	0.10	0.15	0.20	0.20	0.05
Audit	0.29	0.30	0.37	0.55	0.78	1.16	1.09	0.30
Ministry of Defense	5.95	8.56	11.08	17.90	23.35	32.18	36.26	9.94
Ministry of Interior	8.52	7.49	11.99	15.22	17.68	20.30	24.50	6.71
Ministry of Information/Tourism	3.88	3.80	6.81	7.55	8.89	9.72	9.20	2.52
Ministry of External Affairs	6.93	13.20	19.25	21.75	21.64	21.07	25.04	6.86
Ministry of Justice	1.80	1.66	1.85	4.43	5.90	3.51	4.28	1.17
Ministry of Finance/Econ Affairs	7.66	12.43	17.85	20.40	21.42	14.48	16.34	4.48
Pensions and Gratuities	6.54	8.99	8.02	11.79	15.95	13.58	17.68	4.84
Debt Service Charges	19.97	63.86	109.97	153.41	202.38	269.25	186.36	
Miscellaneous Services	7.30	105.46	154.79	19.44	3.54	61.80	49.22	6.09 *
Minus GLF transfer to Dev Budget		(2.00)	0.00	(1.80)	0.00	(25.00)	(27.00)	
Ministry of Local Goverment/Lands	3.87	4.55	5.04	7.10	8.43	8.98	10.32	2.83
Ministry of Agriculture	10.73	9.38	13.27	14.48	14.31	17.35	19.30	5.29
Ministry of Natural Resources/Env	4.08	3.71	4.75	6.51	6.50	7.35	7.90	2.16
Ministry of Works/Communications	11.24	10.23	15.03	16.76	16.67	13.44	13.84	3.79
Ministry of Trade/Indust/Employmnt	1.46	6.07	1.97	6.16	2.24	5.59	5.36	1.47
Ministry of Education	24.19	24.81	28.41	44.34	60.78	72.90	76.80	21.04
Ministry of Health	14.67	17.90	20.74	25.38	30.21	37.01	38.88	10.65
Total	150.75	311.37	453.83	421.14	498.47	622.03	551.32	100.00

* Percentage of adjusted recurrent expenditure (exclusive of debt service and Transfer to the Development Fund)

** Refers to percentage of Misc. Services exclusive of GLF

TABLE 2: SUMMARY OF RECURRENT EXPENDITURES (in millions of dollars) ***

	Actual 1987/88	Actual 1988/89	Actual 1989/90	Estimates 1990/91 (revised)	Estimates 1991/92
Office of the President	3.27	4.06	4.48	4.20	3.52
Legislature	0.08	0.13	0.17	0.20	0.19
Judiciary	0.00	0.00	0.00	0.32	0.31
Public Service Commission	0.01	0.01	0.02	0.03	0.02
Audit	0.05	0.08	0.10	0.15	0.12
Ministry of Defense	1.65	2.53	2.89	4.08	4.08
Ministry of Interior	1.78	2.15	2.19	2.58	2.76
Ministry of Information/Tourism	1.01	1.07	1.10	1.23	1.03
Ministry of External Affairs	2.86	3.07	2.67	2.67	2.82
Ministry of Justice	0.27	0.63	0.73	0.45	0.48
Ministry of Finance/Econ Affairs	2.65	2.88	2.65	1.84	1.84
Pensions and Gratuities	1.19	1.67	1.97	1.72	1.99
Debt Service Charges	16.34	21.67	25.02	34.17	20.96
Miscellaneous Services	23.00	2.75	0.44	7.84	5.54
Ministry of Local Goverment/Lands	0.00	(0.25)	0.00	(3.17)	(3.04)
Ministry of Agriculture	0.75	1.00	1.04	1.14	1.16
Ministry of Natural Resources/Env	1.97	2.05	1.77	2.20	2.17
Ministry of Works/Communications	0.71	0.92	0.80	0.93	0.89
Ministry of Trade/Indust/Employmnt	2.23	2.37	2.06	1.71	1.56
Ministry of Education	0.29	0.87	0.28	0.71	0.60
Ministry of Health	4.22	6.26	7.51	9.25	8.64
Total	64.35	55.90	57.88	74.24	57.64

*** Exchange rates used: 6.73 D/$ (1987/88); 7.08 D/$ (1988/89); 8.09 D/$ (1989-90); 7.88 D/$ (1990-91); and 8.89 D/$ (1991-92). These are based on average rates for July-June of each year, except 1991-92, which is based on data from July 91 to March 92).

$87.21 million).[1] This is divided into a Recurrent Budget of D551.3 million (approximately $62 million) and a Development Budget of D226 million (approximately $25.4 million).[2] In the FY 1991/92 Recurrent Budget, Debt Service Charges total D186.4 million (approximately $21 million). Debt Service Charges account for 33.8 percent of the total recurrent budget and 24 percent of the total GOTG budget).

The estimated Recurrent Budget for the Ministry of Agriculture in FY 1991/92 was D19.3 million ($2.17 million). This represents 3.5 percent of the recurrent budget and 5.2 percent of the non-debt service recurrent budget.

Of the MOA recurrent budget, Personal Emoluments (i.e. salaries and allowances) account for D11.5 million (or 59 percent), and "Other Charges" account for D7.8 million (or 41 percent). The percentage of salaries in MOA's recurrent budget has decreased in recent years (from over 75 percent of the recurrent budget in 1985/86 and 1986/87). This reflects a decline in the number of MOA employees by approximately 50 percent since 1986/87.

The estimated Recurrent Budget for the Ministry of Natural Resources and the Environment in FY 1990/91 was D7.9 million ($890,000). This represents 1.43 percent of the total recurrent budget, and 2.16 percent of the non-debt service recurrent budget. Of the MNRE recurrent budget, salaries and allowances account for D4.79 million (60.6 percent), and "Other Charges" account for D3.11 million (39.4 percent).

The above figures are approved estimates for FY 1991/92. The actual FY 1991/92 expenditures will not be known until after the end of the Gambian fiscal year (June 30, 1992).

The Development Budget in FY 1991/92 is estimated at D226 million ($25.4 million). Apart from donor-financed expenditures, it includes contributions from the Gambia Local Fund (GLF) of D27 million. Of the total Development Budget, D40.93 million (18.1 percent) is for agriculture and natural resources activities (see table 2). For 1991/92, the total approved Development Budget for agriculture and natural resources (D40.93 million) is comprised of

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[1] An exchange rate of 8.89 dalasis/dollar is used for FY 1991/92 (based on the average rate for the period July 1991 to March 1992). An exchange rate of 7.88 dalasis/dollar is used for FY 1990/91 (based on the average rate for the period July 1990 to June 1991).

[2] The recurrent budget estimates used here exclude D27 million for the Gambia Local Fund (item 603 under the Miscellaneous Services Head), which constitutes a transfer to the Development Fund and is recorded as an expenditure in that account.

external grants of D3.76 million, external loans of 35.62 million, and the Gambia Local Fund contribution of D1.55 million.

TABLE 3: Agriculture/Natural Resources' Share in the Development Budget

Fiscal Year	Total Dev Budget	Agriculture/ Natural Res.	Agri/Total (%)
1991/92	226.0	40.9	18.1
1990/91	195.0	32.6	16.7
1989/90	182.0	34.1	18.7
1988/89	205.0	43.5	21.2

Source: GOTG, Estimates of Development Expenditure

Apart from the recurrent and development budgets, the public investment in the agriculture and natural resources sector includes donor-financed off-budget expenditures. This category of expenditure consists of projects financed by donors such as FAO, UNDP, EC and USAID. Funds allocated to these projects do not go directly to the GOTG, but instead are disbursed by the respective donors or contractors to meet specific project expenses. The GOTG's contribution to these projects is usually met from the recurrent budget (the GLF, on the other hand, only contributes to projects found in the Development Budget. The Off-Budget expenditure category constitutes a significant portion of the investment in the sector. For example, it was estimated that the Off Budget expenditures accounted for 55.1 percent of the total Ministry of Agriculture Expenditures in FY 1989/90 and over 54 percent in FY 1990/91. (Jabara, Preparation of the Public Expenditure Program, Nov. 1991). This introduces a certain instability to the GOTG's budget, in that a ministry's combined budget is dominated by donor projects, some of which play predominant roles in selected ministry program areas. As these projects come on or go off stream it has sizeable implications for the recurrent cost burden facing the ministry.

C. Overview of the GOTG Budgeting Process

In November of each year, the MFEA issues a Budget "Call Circular". This document provides guidelines for ministries to follow in preparing budget estimates and requests the submission of budget proposals. It anticipates incremental additions to the

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previous year's spending by each ministry to cover inflation as well as changes in policy.

Based on the Call Circular, the ministries prepare Personnel, Recurrent, and Development Budgets in the period from December to February. The budgets prepared are not by program. Rather, they are by line item, as presented in the Estimates of Revenue and Expenditure that are published annually. Personnel roles are reviewed by the Personnel Management Office (PMO). Revised estimates are submitted to the MFEA by March 1.

The MFEA consolidates the budget estimates. Often, the consolidated figures exceed the target deficit level, necessitating bilateral discussions with each ministry (in March and April). Based on these discussions, the MFEA prepares Final Draft Estimates (in April to May). These are presented for Cabinet consideration in early June, followed by Parliamentary approval in the second or third week in June (before the June 30 end of the Gambian fiscal year).

Following Parliamentary approval, the MFEA issues a general warrant which specifies the funds going to each ministry to cover the first quarter of the fiscal year. Twenty-five percent of the total budget is provided each quarter. The ministries receive the warrant and record the totals in the Vote Charge Book. Once this is done, they can incur obligations against the funds available in the Vote Charge Book. Each purchase order is recorded in the Vote Charge Book. The Principal Internal Auditor receives the purchase orders, checks for funds availability, and records the purchase order in the register and stamps it as approved. The approved purchase order is sent back to the ministry, which places the order and prepares a voucher. The vouchers are then returned to the Principal Internal Auditor, who again checks for funds availability and clears and forwards the voucher to the Treasury, which issues the check. The check is sent to the ministry requesting it. The latter registers the check in the vote charge book and makes payment.

During the course of the fiscal year, requests are made for Supplementary Appropriations (SAPs) due to the need for expenditures that exceed amounts budgeted. These supplementary appropriations may be approved by "quoting savings" from elsewhere in the budget. The savings may be quoted from budget lines where it is clear that expenditures will not reach budgeted levels. If savings are quoted against some element or line item in a ministry's budget, the funds against which the savings are quoted are no longer available for the original use. Generally, savings are quoted from within the ministry requesting the supplementary appropriation.

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The recurrent budget is made up of 'Personal Emoluments' (basically salaries and allowances) and 'Other Charges'[3]. A ministry cannot quote savings in the "Other Charges" to meet cost overruns in the Salaries and Allowances items, and vice versa. The intent of this rule is primarily to prevent the raiding of other charges to meet personnel requirements.

The GOTG fiscal year ends on June 30. In July the MFEA (Accountant General) has its first closing. There are two subsequent closings, where the books are reconciled, later in the year.

D. The Program Budgeting System

1. Purpose and Benefits of the PBS

The Program Budget System (PBS) is a management tool that enables one to more rationally plan, budget, and monitor program expenditures and to ultimately evaluate the impact of those expenditures. Its intent is to prioritize program activities, and hence improve resource allocation. A PBS system was introduced into the Ministry of Agriculture (MOA) in 1988.

The PBS System has four stages:

- programming activities;
- creating budgets for these activities in a format consistent with government accounting procedures;
- monitoring expenditures; and
- monitoring achievements toward established goals.

PBS systems have a number of benefits. First, the increased rigor in program planning imposed by the PBS system is inherently beneficial in terms of resource allocation. The use of the PBS permits the individual program managers and senior ministry staff to construct more rational budgets which clearly allocate resources among programs. The budgets can be prepared more easily, and over

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[3] Other Charges include items such as travelling expenses (e.g. per diems), agricultural inputs (e.g. pesticides and chemicals, animal feed, and vaccines), office expenses, operation and maintenance of vehicles and equipment, building and facility maintenance, in-service training costs, and miscellaneous costs associated with demonstrations. It may also include the purchase of vehicles and equipment

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a longer time-horizon. This facilitates the process of program monitoring and evaluation. Finally, more rational budgets can be more effectively defended in the overall government budgetary allocation process, thus potentially increasing the ministry's share of resources.

2. Implementing the PBS in the MOA

The initial recommendation to develop a PBS system for the MOA was made in a 1987 report by Peat, Marwick McLintock (PMM), entitled "Government of The Gambia: Review of the Ministry of Agriculture, Final Report". That study reported that the allocation of resources within the MOA involved little or no program review or priority setting. Rather, it was based on incremental additions to prior year estimates. The study concluded that there was limited liaison between the Ministry of Finance and Economic Affairs (MFEA) and the MOA. The former felt that the budget estimates of the MOA were inadequate, while the MOA felt that there was a lack of understanding on the part of the MFEA of the particular needs of the agriculture program.

The PMM study concluded that the lack of integration between the recurrent and development estimates was a serious problem for the MOA's program planning. The two budgets appeared to be developed separately, with little program-level coordination. Moreover, there were significant omissions in the development budget which understated the total long-term commitment.

When reviewing the actual expenditures in the MOA, the PMM study found that departments rarely spent the budget allocated. This was due to difficulties encountered in the disbursement process. Finally, the lack of consideration of long-term funding needs after donor funded projects ended was cited as a major problem.

In response to the PMM study, the Ministry of Agriculture initiated a pilot PBS program within the Department of Agricultural Research. Technical assistance to do this was provided under the Gambia Agricultural Research and Diversification (GARD) Project. A long-term financial advisor was assigned to this project in 1988. With the successful implementation of the PBS within the Department of Agricultural Research, the MOA decided to implement it across all departments. This effort began in June of 1989, with the creation of the PBS office. This office was placed under the Deputy Permanent Secretary for Programs. The ADP II accountant was named Ministry coordinator of PBS activities. The GARD project provided technical assistance and computer equipment.

Between June 1989 to July 1991, the GARD project was involved in (1) introducing PBS concepts to various Ministry Department heads and officials, (2) drafting an implementation plan, in

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developing a coding system to translate departmental programs into a PBS format, (3) developing computer programs, and (4) creating the databases that currently support the system. The PBS system was developed on an integrated, relational data base software called 'Paradox' (by Borland, Inc.).

The first step in implementing the PBS system was to assist each of the department heads to define their programs. The departments began by identifying the major department programs. Next, these programs were divided into Projects and the Projects were broken into Activities. Each combination of Program/Project/Activity was assigned a unique code, which comprised the Program Coding List (PCL).

Three sets of budgetary forms were developed. The first form, the "Project Summary" allowed the department to describe in narrative form the program being planned. The second form, entitled "Activity Budget sheet" was designed for departments to estimate the supply and capital costs necessary to finance each program/project/activity being planned. Work sheets were provided to help the departments estimate fuel and supply costs associated with each program. The third form, "Staff Costs" allocated staff costs to each program/project/activity. In addition to collecting the information required in the PBS system, the forms were designed to collect the data required by the MFEA for use in building the Annual Estimates. As the MOA budget was revised by the Ministry of Finance, the Cabinet, and the Parliament, the PBS figures were revised to reflect the changes. After the Parliament's final decisions on the Estimates, the final PBS budget is printed and distributed.

Currently, the PBS system contains incomplete information on the donor assistance to the Ministry of Agriculture. The PBS data base integrates information on both recurrent and development expenditure by project. However, with the exception of the GARD Project, it excludes expenditure that is financed "Off-Budget" by other donors.

3. The Need for Linking the PBS and MFEA Budget Processes

Unfortunately, it is not clear the extent to which the Ministry of Agriculture's PBS system influences the preparation of the actual recurrent budget for the MOA. The overall ministry budget figures are set by the MFEA (based on previous years levels) in the annual Call Circular. For example, the FY 1992/93 Call Circular was issued in November 1991, requesting budget submissions by February (it appears that the MOA submitted its budget estimates somewhat later than that). The bulk of the PBS planning effort occurs in March and April (the MOA issued its PBS call circular for FY 1992/93 in April 1992). In essence, the PBS system takes the overall MFEA budget figures as given and, within this framework, provides a mechanism for setting priorities within Departments.

The budget submitted to the MFEA is adjusted, based on bilateral discussions between the MFEA and MOA (it is now, in May 1992, in final form. While, undoubtedly, the PBS planning process indirectly influences the MOA/MFEA budget negotiations, there is no explicit linkage.

Clearly, it would be prefereable to have the PBS play a more direct role in establishing the overall MFEA budget. Starting the PBS process earlier (i.e. before the MOA responds to the call circular) could be problematic because MOA activities (and hence budgeting) depends upon the crop cycle. Some Departments, particularly Agricultural Research, need to see the results of one year's work before programming the following year's. Much of the research results are not available until February. Nevertheless, an objective of the ANR Program will be to more fully integrate the PBS into the MOA's budget setting process, so that the PBS plays an ex ante, rather than an ex post role in the determination of budget evels. The system should be able to identify resources becoming vailable from projects nearing completion. The continuous program valuation of PBS will enhance the process of setting program riorities, which should allow the Ministry to document budget eeds and defend request for addition program funding.

4. Capturing the PBS's Expenditure and Evaluation Benefits

A major component of the PBS system is the collection of expenditure data. The collection of expenditure data using the PBS system was begun in the MOA in July 1991. During the 1991/92 fiscal year the PBS has provided program managers with a Monthly Financial Report. This report allows them to analyze expenditures by Program/Project/Activity and to compare expenditure figures against budgeted estimates. Doing this has required that every financial and accounting transaction executed by the MOA be identified with a PBS code. Departmental financial staff record each transaction which is sent to the PBS office on a weekly or monthly basis. Some departments submit this on log sheets. Those with computer equipment key it in and send the information via disk.

The evaluation benefits derived from the PBS during the first year or two were relatively low. There were high start-up costs in terms of equipment and staff time. The development of the PBS system for the MOA involved considerable experimentation with the conceptual model, as well as the development of documentation and training materials. Changes were necessary in the planning, reporting, and budgeting processing, all of which caused disruption. It was not until the second year that the benefits of the PBS became clearer, data collection and budgeting became better understood, and reports were generated that were useful.

At present, the PBS Project is part way through the

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achievement of monitoring expenditure stage of the PBS process. However, the full benefit of the PBS will come only with the completion of the latter two stages of the PBS process (expenditure monitoring and monitoring achievement of established goals). In general, planning and budgeting effort is of limited value unless you track expenditures. During FY 1991/92, MOA expenditures have been monitored for the first time. Once the fiscal year ends (June 30, 1992), the expenditure data will need to be aggregated and compared with the PBS budgets. This will permit an analysis of discrepancies between the original budget and ultimate expenditures.

The long-term objective of the ANR Program's assistance for the PBS is to arrive at the point where the achievement of objectives are measured and activities are evaluated for their cost effectiveness. The MOA already envisions some steps in this direction, involving the establishment of a progress reporting system (performance against the original program timetable). Such management information would help senior staff to determine whether additional resources are needed to achieve stated objectives, or whether a given program should be terminated as unrealistic.

Along these lines, performance criteria can be established to measure the cost-effectiveness of various programs. Major physical indicators for each program would be developed and the attainment of objectives vis-a-vis these indicators assessed. Generally, physical indicators would relate to the volume of service provided by a program (as opposed to the quality of service provided, which is much more difficult to estimate). A limited number of indicators may be necessary to evaluate a program. However, one would want to develop indicators that captured the major activity or goal of the program. For example, crop extension efforts could be measured by the number of farmers reached by demonstrations or extension visits. Animal husbandry activities would be measured by the numbers of animals treated, soil and water conservation activities by the numbers of hectares affected. One would want to identify indicators for which data was already routinely collected. This could be part of the Ministry's normal program evaluation process. It is proposed below that the ANR Program support efforts by the MOA to move in this direction.

5. <u>Problems with the Sustainability of the PBS</u>

The GARD-funded advisor left the Gambia in March 1992 (the GARD Project is scheduled to end in June 1992). Despite the four-year effort that has been invested in establishing the PBS system in the MOA, the system is not yet institutionalized and sustainable. Part of the problem has been the turnover of MOA personnel. However, part of the problem is the failure of the MOA to dedicate a senior level staff member to the PBS system. The individual assigned to serve as ministry coordinator for PBS

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activities (and hence the GARD advisor's counterpart) was the Project Accountant for the World Bank-funded Second Agriculture Development Project (ADP II). While he provided management-level supervision to the PBS effort, his duties with ADP II have precluded his significant involvement in the technical and operational aspects of the PBS system. The MOA has, however, submitted a request for a full-time PBS coordinator (hopefully by July 1992).

To exacerbate matters, the accounts clerk assigned to the PBS office, who carried out data entry and office operations, left the MOA in early 1992 to pursue degree training in England. While the MOA replaced the departed accounts clerk prior to the departure of the expatriate advisor, the time available to fully train this person was limited. While any organization must deal with staff turnover, the problem is particularly acute for the GOTG, where relatively low government salaries compared to the private sector ake it difficult to retain individuals with marketable skills. he problem is exacerbated by the relatively short assignment tours f accounts clerks, who are shifted routinely among government gencies by the Accountant General.

Finally, although one of the underlying principles of PBS is the decentralization of program planning and budgeting, only a few people in each department understand the conceptual basis for PBS and the benefits of such a system. This, together with the staff turnover problem, make it necessary to do frequent and sufficient cross training to ensure continuity of the administrative process.

As with most organizations, there is a reluctance to put resources into administration. For example, the initial staffing of the PBS office was hotly debated, with some arguing that the PBS responsibilities should be added on to existing positions. However, the PBS will not run without the effort of one or more individuals assigned to perform the training, data collection, computer work, and other functions needed to carry it out. The overall administrative function for PBS might be handled by an existing position, but the technical and daily operational aspects require a full time position.

The sustenance of the PBS in the MOA and the introduction of the system to the MNRE will require the assignment by each ministry of a dedicated staff member to manage the administration of the PBS. This individual must have sufficient seniority and stature to deal with senior staff directly, to ensure that the directors and their staff meet PBS deadlines in a timely manner. To an excessive degree, the implementation of the PBS in the MOA has been dependent upon the influence of the expatriate GARD advisor. This responsibility must be placed in the hands of a government employee. The GARD advisor recommended that this position be that of a Senior Assistant Secretary (Grade 9) or Senior Accountant (Grade 9). Without such an individual being appointed as soon as

possible, the PBS system will cease to function.

E. Linkages with the Public Expenditure Program

As part of its agreement with the World Bank for the Second 8Structural Adjustment Loan, The Gambia made a commitment to prepare a medium term Public Expenditure Program (PEP). The PEP is designed to assist the GOTG in setting priorities among and within ministries. (Whereas the PBS is designed to assist a ministry in setting priorities within its own budget).

The World Bank program for 1990/91 through 1992/93 specified that PEPs would be prepared in the Ministries of Education, Health, Agriculture, and Works. The steps in the preparation of the PEP include the following:

- Preparation of an overview of each sector's characteristics and constraints, GOTG strategy, and the effectiveness of the provision of services.
- Identification of priority programs and, for each, estimation of actual and projected expenditures by category (e.g. salaries and wages, other goods and services, and maintenance).
- Definition of physical indicators of accomplishment, and assessment of achievement in terms of level of output attained (e.g. number of kilometers of road maintained) per unit of actual expenditure.
- Establishment of targets for the next three years for all priority programs in each sector. Identification of input requirements to achieve the targets. Estimation of the costs of providing the inputs in terms of domestic and foreign currency.
- Based on the above, proposal of an explicitly justified public expenditure program.

The progress in developing the PEP has been much slower than initially hoped. The World Bank has provided short-term technical assistance to assist the MFEA and the four ministries to initiate and implement the PEP. As a result of these TA missions, it became readily apparently that the PEP will not work unless some form of program planning and budgeting is introduced as well. In other words, implementation of the PEP requires the baseline budget and expenditure data that the PBS generates.

As a result of the World Bank consultants' efforts, the MFEA has decided to consider implementing a form of PBS on a broader scale, perhaps government-wide. Integrating PBS with PEP will be

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relatively simple. However, implementing the PBS throughout the government will be very difficult.

The decision by the MFEA to adopt the PEP, with support by the World Bank and other donors, is laudable. However, without adequate commitment from other ministries and the investment of significant resources, the effort will fail.

F. Options for Non-Project Assistance Conditionality Linked to Public Sector Funding

Two options were considered for the use of non-project assistance as a means of improving public sector funding. The first option involved possible limits on expenditure embargoes as a means of ensuring the timeliness of public sector funding. Based n the analysis presented below, it was concluded that this option, hile potentially valuable, would require a significant amount of dditional analysis during project implementation before it could e operationalized.

The second option involved conditionality aimed at increasing the level of funding going to the Ministry of Agriculture and the Ministry of Natural Resources and the Environment. The level of increase would be negotiated with the MFEA, following a comprehensive review of current expenditure patterns and needs of these two agencies. It was recommended that this option be pursued.

1. The GOTG's Use of Embargoes to Control Expenditures

One of the factors contributing to the success of the GOTG's macroeconomic adjustment program has been a tight fiscal policy. Until recently, this has involved the adherence by the GOTG to quarterly targets established under the IMF agreement. Although The Gambia has graduated from the IMF program, it is the GOTG's intention to continue this tight fiscal policy in consultation with the IMF and World Bank within the context of a "shadow" program.

The expenditure controls required under this fiscal policy have relied heavily on centralized control over voucher processing, and over the tendering and payments process. Under the IMF-supported adjustment program, the GOTG developed a very effective system of reporting on monthly progress against credit ceiling targets. When these ceilings are reached, the GOTG places an "embargo" on expenditures. When this happens, the Principal Internal Auditor within the MFEA simply stops authorizing vouchers until the embargo is lifted. Embargoes may be placed on selected ministries or programs, or across the board. Embargoes have generally occurred at the end of the quarter, as the GOTG tries to stay within its approved credit ceilings. Once the quarter ends, the backlog is cleared. Expenditures embargoed at the end of the

fiscal year can not be incurred and, unless they are covered by the following year's budget, will not be made (except for automatic expenditures, such as for telephones and utilities, in which arrears accumulate).

Embargoes in the closing months of the fiscal year, May and June, can be particularly important for the MOA, as the planting season begins in July. In these months, the MOA's level of activity should increase, as preparations are made for the upcoming planting season, which begins in July. At the same time, some MOA activities, such as soil conservation works, must be carried out during the dry season, when local labor is available and construction activites can be undertaken more easily.

Embargoes could come about as a result of unanticipated shortages in overall government revenues, or as a result of over-expenditures resulting from the authorization of supplementary appropriations that exceed savings elsewhere in the budget. One particular difficulty of the GOTG has been in effectively limiting the centrally-administered international travel account, which is in the Office of the President (although it covers GOTG international travel costs).

The embargo approach is not conducive to longer-term planning, such as that envisaged in the proposed Public Expenditure Program (PEP). In the absence of clear prioritization from the ministries, the MFEA has no basis for assigning priorities to the approval of vouchers in times of limited funds availability. The distribution of the burden appears to result from ad hoc senior level decision making, leavened with inter-ministerial jawboning.

In effect, this system means that expenditures are paid on a first-come-first-served basis, rather than based on priorities established through a rigorous planning framework. Although this system has been effective in maintaining aggregate control over cash outlays and in meeting the quarterly targets, it has greatly reduced the decision-making authority of the ministries. Moreover, the failure to process vouchers in a timely manner has undermined the willingness of suppliers to supply goods and services to the government on credit. In the absence of sound budgeting and prioritization, cuts usually come from the "Other Charges" line items, rather than from the "Salaries and Allowances". The result is that, over time budget costs shift from operating expenditures to personnel costs, which are more resistent to erosion.

A related problem involves delays in the issuance of warrants after the approval of the budget by the Parliament (at the end of June). The months immediately following the approval of the budget are particularly important for the operations of the MOA, as July is the onset of the planting season. During this period, for example, extension agents must have the mobility to visit farmers and inputs must be made available. Mechanisms must be put into

place to avoid the interruption in the flow of funds within the MOA.

2. Conditionality Considered

The PAAD team explored the possibility of conditioning non-project assistance on the timely provision of GOTG budgetary allocations for the MOA and the MNRE. Specifically, this would involve an agreement prohibiting embargoes on funding for "Other Charges" for the MOA, and eventually MNRE.

The proposed conditionality would have required, however, that USAID monitor whether or not an embargo had been placed on the protected "Other Charges" line items in the MNRE and MOA budgets. This was problematic. While embargoes in the past have not been ambtle and word has spread quickly when an embargo is in effect, it oes not appear that we have an independent means of verifying eyond reasonable doubt and in a timely manner the existence of an ibargo.

When an embargo has been placed on a budget, vouchers are not processed. However, there may be a number of reasons why vouchers would be rejected or held. There may, for example, be a backlog in processing, or questions may have arisen about specific vouchers (e.g. whether or not they are in accordance with the approved budget). Reflecting on the complex vouchering process that USAID itself has puts this into perspective. Despite its best intentions and certainly more highly trained personnel, USAID's processing of vouchers often entails inordinate delays. It would be very difficult, for example, for an outsider to detect whether the USAID controller was slowing down the processing of vouchers to delay payments until the next fiscal quarter. There is little reason to believe that the GOTG vouchering process would be any more transparent than that of USAID.

It would be difficult to determine to what extent a proposed embargo is due to excessive expenditures elsewhere in the budget, as opposed to unforeseen macroeconomic problems, such as falls in revenues, or increases in import costs (for example, a hike in the international price of petroleum). Undoubtedly, both factors will be present. Ultimately, however, the GOTG would have to have the flexibility to respond to such unforeseen financial constraints. It was concluded, therefore, that significant additional analysis would be needed before a viable mechanism for addressing the embargo problem could be developed. This would, therefore, remain an area of study, and a source of possible future NPA conditionality.

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G. Ensuring the Overall Adequacy of Public Sector Funding

1. The Need for Budgetary Increases

In parallel to the question of the timing of budget allocations and the correspondence of allocations to the budget, there remains the question of whether the aggregate amount of funds available within the MOA and MNRE budget is adequate. As noted above, the estimated Recurrent Budget for the Ministry of Agriculture in FY 1991/92 was D19.3 million ($2.17 million), or 5.2 percent of the recurrent budget after non-debt service and transfers to the Development Fund are subtracted. The estimated Recurrent Budget for the Ministry of Natural Resources and the Environment in FY 1990/91 was D7.9 million ($880,000), or 2.16 percent of the non-debt service recurrent budget. In designing the ANR Program, the limitations on effective action due to the lack of adequate manpower in key areas and the lack of operational resources within these two ministries was manifest. At the same time, other donors are providing recurrent budget support to both the MNRE and MOA. Specifically, the World Bank's ADP III Project will include funding to cover the recurrent costs of the MOA, while the UNSO support being given to the MNRE's Environment and Planning Units includes some salary support.

Precedent had been set for donor budgetary support conditioned upon explicit increases in the percentage of the total recurrent budget going to a given sector. Specifically, based on agreements with the IMF and World Bank, the combined share of spending on education and health in total current expenditure (excluding debt service payments and transfers to the development fund) is targeted to increase from an estimated 32 percent in 1991/92 to 36 percent by 1994/95. Given (1) the importance of agriculture in the Gambian economy, (2) that enhanced protection of the natural resource base is an area specifically targeted for investment under the Program for Sustained Development, and (3) the severity of the environmental problems facing the country, it could be reasonably argued that The Gambia's recurrent budget for the MOA and MNRE is low and should similarly be increased as a percentage of the recurrent budget.

During the design of the ANR Program, consideration was given to conditioning assistance on percentage increases in the budgets of the MOA and MNRE. However, after discussions with the MFEA, the design team decided against this approach. An alternative is to condition non-project assistance against increases in recurrent budget levels for specific MNRE and MOA programs.

2. Proposed conditionality

It is proposed, therefore, that non-project assistance disbursements be conditioned on increases in recurrent budget

levels for specific MNRE and MOA programs related to the implementation of the ANR Program and the natural resources agenda outlined in the Gambia Environmental Action Plan. The amount of increase will be based on an independent analysis of multi-year funding requirements to be carried out early in the project's life. This analysis would include:

(1) A review of the mandate and organizational structure of MOA and MNRE and the current effective staffing and operational funding levels for the various units (taking into account off-budget expenditures, as well as the recurrent and development budgets);

(2) An estimate of the multi-year requirements in terms of personnel and operational expenses for implementing the USAID-funded ANR Program, as well as the natural resources agenda outlined in the Gambia Environmental Action Plan (this analysis will take into account recurrent cost support being provided by other donors); and

(3) An examination of funding flows and constraints, including an estimate of the impact of embargoes and delays in issuing warrants on the implementation of programs in these two ministries and the potential for modifications to the allocation system that would ensure the timely availability of funds.

This analysis would be carried out in late 1993 by representatives of the MFEA, MOA, MNRE and outside consultants financed by the ANR Program. Based on this analysis, USAID and the MFEA will discuss appropriate non-project assistance linked to an increase in the funding levels for selected programs within these two ministries. These discussions would take place in early 1994, with the objective of putting the budget change into effect in the FY 94/95 fiscal year (i.e. completing the negotiations before the issuance of the FY 94/95 call circular). Non-project assistance could then be included in the Third Tranche, July 1994.

H. Support Project Assistance to Implement The Program Budget System

Continued support for the PBS is proposed under the ANR Project with the objective of institutionalizing it within the MOA and extending it to the MNRE. This will require investment in long- and short-term technical assistance, training, and computer equipment. Efforts to date within the MOA have been frustrated by high staff turnover. It will therefore be necessary to cross-train MOA and MNRE staff.

The GARD-funded PBS advisor departed post on March 30, 1992,

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following the completion of his two year tour (the GARD administrative officer is providing temporary support to the PBS program until the current termination date of the project - June 30, 1992). Discussions are under way which would bring the original PBS advisor back to Banjul under World Bank funding to provide technical assistance on the extension of the PBS throughout the GOTG under the auspices of the PEP. In the meantime, USAID/Banjul will extend the life of the GARD project to permit GARD financing of a TDY by this advisor during the remainder of 1992. This two-month TDY will tentatively begin in July, during which the advisor will:

- Publish the final FY 1991-92 expenditure reports generated by the MOA's PBS system;
- Review the FY 1992-93 budget estimates and make adjustments necessary to balance the budget table to the budget authorized by the Parliament; and
- Conduct a one day workshop for MOA department Accounts Clerks to review data entry procedures.

A second TDY, hopefully with World Bank financing, is tentatively planned for October. The purpose of this trip will be to:

- Ensure that the monthly financial reports are being prepared and distributed to departments;
- Coordinate initial FY 1993/94 budget planning activities;
- Conduct a one day workshop for department directors for the MOA (and perhaps for the MNRE); and
- Identify computer needs and a plan for the extension of the PBS system to the MNRE.

Assuming that the Program and Support Project Agreements for the ANR Program is signed in August 1992, it is unlikely that a new expatriate PBS advisor can be fielded before June 1993 [4] If the former GARD advisor returns before then under World Bank funding,

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[4] The following are the required contracting steps (with estimated completion dates in parentheses): (1) PIO/T issued by USAID for the institutional contract (Aug. 92); (2) Request for Proposals (RFP) drafted and submitted to the Regional Contracts Officer for review (Sept. 92); (3) RFP advertized (Nov. 92); (4) Proposal review process begins (Feb 93); (5) institutional contractor selected (Apr 93); and (6) team fielded by institutional contractor (June 93).

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we anticipate that he will be available to provide limited support to ensure the continuation of the MOA PBS system. If not, ANR Program funding will be necessary to bring him back at least once during early CY 1993 to monitor the system.

Concerted efforts to extend the PBS system to the MNRE will have to await the arrival of the ANR Program-funded PBS advisor. This advisor will be on a 30 month contract. It is assumed that this advisor will be fielded in June 1993, and will remain in country until December 1995. The objectives of this long-term assistance in PBS will be to:

1. Sustain and completely institutionalize the PBS system in the MOA and introduce the programming and budgeting elements of the PBS system to the MNRE;

2. Ensure that the expenditure monitoring component of the PBS is operational in both the MOA and MNRE, and that senior staff of both ministries know how to use this new knowledge for improved planning and budgeting; and

3. Ensure that the PBS system serves as input into the process by which the official ministry budgets are established.

The long-term PBS advisor will be supplemented by short-term technical assistance. A particular focus of this short-term TA could be the development, within the MOA, of a simple program evaluation system linked to the PBS. This would involve the development and testing, on a pilot basis, of indicators of the cost/effectiveness of programs and activities. It is not intended that this would become a major effort at the development of a monitoring and information system. However, the full benefits of the PBS will not be realized until some effort is made to ensure that the expenditures made are cost effective.

The following is an indicative budget for donor assistance to complete the PBS in the MOA and implement it in the MNRE:

Long-term technical assistance: 2.5 py	$ 650,000
Short-term TA (5 pm x $20,000/pm)	100,000
In-country training workshops	35,000
Commodities (e.g. computer supplies and equipment, office equipment vehicle maintenance)	55,000
Miscellaneous office supplies and other costs	20,000
TOTAL	$ 860,000

I. Proposed Conditionality Linked to Implementation of the PBS

In order to institutionalize and ensure the sustainability of the PBS system, the following commitments will have to be made by the GOTG:

1. Tranche No. 1 (tentatively December 1992)

Non-project assistance under the first tranche would be based upon the following:

a. The MOA will reaffirm its intention to continue development of the PBS system. The MNRE will formally agree to implement it. Both ministries will establish action plans for implementing the PBS.

b. Both the MOA and MNRE will assign to their respective PBS programs senior-level staff members whose primary responsibility will be to coordinate and further develop the PBS program. Preferably, these individuals will be at the Grade 9 level (Senior Assistant Secretary or Senior Accountant). For MOA, the position would be effective as of the 1992/93 budget. MNRE would agree to propose the position for the 1993/94 budget and would assign another staff member to handle the PBS program in the interim.

2. Tranche No. 3 (tentatively July 1994)

Non-project assistance in the third tranche would be conditioned on an explicit adjustment of the recurrent budgets for specific MOA and MNRE programs related to the implementation of the ANR Program and the natural resources agenda outlined in the Gambia Environmental Action Plan.

The level of this adjustment would have to be negotiated with the GOTG and based on an analysis, using available information, of multi-year funding requirements of the two Ministries involved in natural resources. This analysis would be carried out in late 1993 by representatives of the MFEA, MOA, MNRE and outside consultants financed by the ANR Program and it would take into account donor assistance being given to the MOA and MNRE to cover recurrent budget costs. This analysis may also identify additional actions that could serve as the basis for non-project assistance (e.g. steps to address the problem of funds embargoes and allocation delays).

3. Tranche No. 4 (tentatively July 1994)

The release of NPA assistance under the Fourth Tranche would be based upon the preparation of FY 1993/94 Program Budgeting System Annual Financial Reports by the MNRE and MOA. The contents of the PBS Annual Financial Report would be explicitly outlined as a condition of the first tranche release, but will in principle include only a breakdown of the budget, an analysis of the expenditures, and recommendations for future budgetary priorities. The reports should include results of efforts at establishing program evaluation.

Table 3: Timetable for Implementation of the PBS Component in the Ministry of Agriculture

Apr 92	MOA/MFEA negotiate FY 92/93 budget
June 92	FY 92/93 budget approved
July 92	**MOA full time PBS coordinator position filled**
July 92	Start of Gambian 1992/93 fiscal year
July 92	**FY 1991/92 expenditure data analyzed (short-term TDY by former GARD PBS advisor)**
Aug. 92	**Planned signature of ANR Proag**
Oct. 92	**Tranche 1: MOA (and MNRE) develop action plans for implementation of the PBS, which include assignment of the required staff and, for MOA, evidence of a 1991/92 annual financial report.**
Oct 92	**Publication of Annual Financial Report which analyzes FY 91/92 expenditures**
Oct. 92	**PBS budget planning begins for FY 93/94; MOA department heads required to provide tentative program budgets in PBS format**
Nov 92	MFEA issues budget "Call Circular" for FY 93/94
Apr 93	MOA/MFEA negotiate FY 93/94 budget
June 93	FY 93/94 budget approved
June 93	**Arrival of ANR-funded PBS Advisor**
July 93	Start of FY 93/94
July 93	Expenditure data analyzed for FY 92/93 season
Aug 93	**Publication of Annual Financial Report analyzing FY 92/93 MOA expenditures from PBS system**

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Oct. 93	**PBS budget planning begins for FY 94/95; MOA department heads required to provide tentative program budgets in PBS format**
Nov 93	MFEA issues budget "Call Circular" for FY 94/95
Dec. 93	**Comprehensive analysis of the multi-year funding requirements of MOA (and MNRE) for implementing the field work envisioned under the ANR Program and the natural resources agenda outlined in the Gambia Environmental Action Plan. This will include an examination of funding flows and constraints (e.g. the impact of embargoes) and suggest modifications to the allocation system. This analysis is to be carried out by representatives of the MFEA, MOA, MNRE and outside consultants financed by the ANR Program.**
Mar. 94	**Negotiation of an increase in the recurrent budget of selected MOA (and MNRE) programs based on the Dec. 93 analysis of funding requirements. This adjustment would take effect in the FY 94/95 budget.**
Apr 94	MOA/MFEA negotiate FY 94/95 budget
May 94	**With TDY assistance, begin development and testing, on a pilot basis, of indicators of the cost effectiveness of programs and activities.**
June 94	FY 94/95 budget approved.
July 94	**Tranche 3: Released upon development of FY 94/95 recurrent budgets for selected MOA (and MNRE) programs related to the implementation of the ANR Program and the natural resources agenda outlined in the Gambia Environmental Action Plan. The level will be established following a multi-year funding analysis.**
July 94	Start of FY 94/95
July 94	**Begin program evaluation during FY 94/95. ANR Program would provide short-term TA to assist.**
July 94	**Expenditure data analysed for FY 93/94, including preliminary ex-post analysis of performance of MOA units**

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Aug 94	**Publication of Annual Report analysing FY 93/94 expenditures and, to the extent possible, achievements/performance based on preliminary ex-post analysis carried out in July**
Oct. 94	**PBS budget planning begins for FY 95/96; MOA department heads required to provide tentative budgets**
Nov 94	MFEA issues Budget "Call Circular" for FY 95/96
Apr 95	MOA/MFEA negotiate FY 95/96 budget.
June 95	FY 95/96 budget approved
July 95	Start of FY 95/96
July 95	Expenditure data analyzed for FY 94/95, including analysis of pilot achievements/performance indicators. Results published in Annual Report which analyzes expenditures reported by PBS system.
July 95	**Tranche 4: Disbursement based on publication of Annual Financial Reports by MOA (and MNRE) which analyze FY 94/95 expenditures against originally budgeted amounts, make recommendations for the ongoing budget process, and include results of effort at establishing program evaluation.**
July 95	**Begin comprehensive monitoring of performance during FY 95/96**
Oct. 95	**PBS budget planning begins for FY 96/97; MOA department heads required to provide tentative budgets**
Nov 95	MFEA issues budget "Call Circular" for FY 96/97
Dec. 95	**Departure of long-term PBS Advisor**
Apr 96	MOA/MFEA negotiate FY 96/97 budget
June 96	FY 96/97 budget approved
July 96	Start of FY 96/97
July 96	**Analysis of FY 95/96 data on expenditures and pilot achievements/performance indicators**
Aug 96	**Publication of Annual Report which analyses FY 95/96 expenditures based on the PBS system and results of achievements/performance analysis**
Dec. 97	**PACD of ANR Program**

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Table 4: **Timetable for Implementation of the PBS Component in the Ministry of Natural Resources and the Environment (MNRE)**

Oct. 92	**Tranche 1: MNRE (and MOA) develop action plans for implementation of the PBS, which include assignment of the required staff.**
Feb 93	**MNRE PBS Coordinator entered in the nominal role for the FY 93/94 budget**
May 93	**MNRE recruits PBS coordinator to serve as counterpart to PBS consultant**
July 93	**Arrival of ANR-funded PBS Advisor**
Sept 93	**PBS Advisor begins training in MNRE (department heads and accountant personnel), reviews PBS concepts and implementation needs, gears up for the FY 94/95 budget**
Oct 93	**MNRE department heads required to produce program budgets in PBS format for 1994/95 budget**
Nov 93	MFEA issues budget "Call Circular" for FY 94/95
Dec. 93	**Comprehensive analysis of the multi-year funding requirements of MNRE (and MOA) for implementing field work of the ANR Program and the natural resources agenda outlined in the Gambia Environmental Action Plan. This will include an examination of funding flows and constraints (e.g. the impact of embargoes) and suggest modifications to the allocation system. This analysis is to be carried out by representatives of the MFEA, MNRE, MOA, and outside consultants financed by the ANR Program.**
Mar. 94	**Negotiation of increases in the budget of selected MNRE programs related to the implementation of the ANR Program and the natural resources agenda outlined in the GEAP. This adjustment wou2ld take effect in the FY 94/95 budget.**
Mar 94	**Expenditure monitoring system designed for MNRE, to be first implemented during FY 94/95**
Apr 94	MNRE/MFEA negotiate FY 94/95 budget
June 94	FY 94/95 budget approved
July 94	Start of FY 94/95

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July 94	**Tranche 3: Released upon explicit adjustment of the FY 94/95 recurrent budgets for selected MNRE (and MOA) programs related to the implementation of the ANR Program and the natural resources agenda outlined in the Gambia Environmental Action Plan. The level will be established following a multi-year funding analysis.**
July 94	**Expenditure monitoring initiated (FY 94/95 budget)**
Nov 94	MFEA issues budget "Call Circular" for FY 95/96
Apr 95	MNRE/MFEA negotiate FY 95/96 budget
June 95	FY 95/96 budget approved
July 95	Start of FY 95/96
July 95	Analysis of expenditure data from FY 94/95 budget and publication of Annual Report on PBS results
July 95	**Tranche 4: Disbursement based on publication of Annual Financial Reports by MNRE (and MOA) which analyze FY 94/95 expenditures against originally budgeted amounts, makes recommendations for ongoing budget process, and includes results of effort at establishing program evaluation.**
Oct 95	**With TDY assistance, begin developing and testing, on a pilot basis, indicators of the cost/effectiveness of programs and activities**
Nov 95	MFEA issues budget "Call Circular" for FY 96/97
Dec. 95	**Departure of long-term PBS Advisor**
Apr 96	MNRE/MFEA negotiate FY 96/97 budget
June 96	FY 96/97 budget approved
July 96	Start of FY 96/97
July 96	**Expenditure and achievements/performance data analyzed for FY 95/96 season (with help from TDY advisor)**
Aug 96	**Publication of Annual Report analyzing FY 95/96 expenditures coming from PBS system**
Dec. 97	**PACD of ANR Program**

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ANNEX M: ENVIRONMENTAL EDUCATION

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The long-term effectiveness of The Gambia's national environmental program will depend as much on attitudes and awareness of environmental problems among the general public as on environmental laws and institutions. This is recognized in the draft Gambia Environmental Action Plan (GEAP), which proposes "A major effort aimed at increasing public awareness of environmental issues..." The GEAP identifies, as a policy objective, "To increase the environmental awareness and understanding of the public and bring about effective public participation and community involvement in environmental management." Within this framework, the educational and informational aspects of the ANR Program will be very important.[1]

While there have been a number of environmental education initiatives undertaken in The Gambia, the lack of coordination has been an impediment to their success. Further, the absence of any central source of materials and information on environmental education has been a handicap for many programs. With respect to environmental education, the main focus of the ANR Support Project will be on improving this coordination and providing guidance to those implementing environmental education activities in The Gambia.

There are three basic elements of an environmental education program. These include: (1) the introduction of environmental concerns into the formal education system; (2) increasing the environmental awareness and capabilities of government staff; and (3) non-formal education (public awareness campaigns).

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[1] Efforts in the area of environmental education must take place within the context of a seriously limited human resource base. The Gambia has a primary school enrollment ratio of 57 percent. Although this is relatively high for Sahelian countries, it is far below the 77 percent average for Sub-Saharan Africa as a whole. Further, this ratio does not accurately reflect the sharp disparities in access by both gender and region. For example, while the urbanized Western Division has an enrollment ration of 86 percent, that of the Upper River Division (URD) is only 23 percent. Similarly, while girls have an overall national enrollment of 46 percent, this figure drops to 14 percent in URD. The estimated literacy rate for females in the country as a whole is 3 percent.

1. Introducing Environmental Concerns into the Formal Education System

With respect to the formal education system, the introduction of environmental concerns may include the following activities (that would be carried out by MNRE and Ministry of Education staff under the guidance of the long-term environmental education advisor):

- Reviewing curricula at the primary and secondary/technical school levels and suggesting changes that would foster increased environmental awareness and knowledge among the younger generations.

- Examining the courses and degree programs at the Gambia College to ensure that adequately trained human resources will be available to the civil service and the private sector faced with new environmental responsibilities.

- Assisting staff of the Ministry of Education to develop new curricula and educational materials that can be used at various levels.

- Providing in-service teacher training covering environmentally-related concerns and disciplines;

- Preparing written instructional materials and visual aids for the introduction of environmental concepts at the various levels of the formal education system.

The Gambian primary school curriculum being developed includes environmental topics throughout the 6 year primary program (themes run from "the home and school environment" in Primary One and leading to "the Gambia and the World Environment" in Primary Six). The science curriculum covers selected topics such as desertification, soil erosion, wildlife conservation, and pollution. Effective in the 1992/93 school year, population issues will be incorporated into the primary curriculum.

There remains, however, significant room for improvement in the implementation of this curriculum. Primary and supplementary instructional materials need to be prepared and distributed. Further, since the bulk of the teachers in the formal education sector are "unqualified", it is important that in-service training courses be conducted for them during the vacation months. Greater attention needs to be given to population issues at all levels.

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The curricula focus would include environmental topics such as principles of ecology, The Gambia's environment, land and water management, problems of degradation and pollution, and citizen's responsibilities. Extracurricular activities would be planned or expanded to expose students to a range of environmental topics and to heighten awareness of The Gambia's natural heritage and the problems of balancing development with conservation of the natural resources. Such activities might include visits to the Abuko Nature Reserve and other natural areas, visits to demonstration farms and research stations, visits to conservation projects (e.g. reforestation, range management efforts, etc.), support for essay contests on environmental topics, and so forth.

2. Increasing the Environmental Awareness and Capabilities of GOTG Staff and Community Leaders

In collaboration with the environmental education staff of MNRE, as well as with the senior staff of the various ministries, the ANR environmental education consultant might:

- Identify the level and nature of The Gambia's future environmental expertise needs;
- Identify in-service training needs, and design and implement in-service training programs, aimed at (1) increasing the sensitivity of GOTG staff to environmental issues, and (2) strengthening their capacity to deal with such issues; and
- Identify training opportunities for individuals in positions which influence public opinion, such as journalists, religious leaders, key individuals from the private sector, and local and regional community leaders.

In particular, as requirements for environmental impact assessments are instituted, there will be a need to brief government officials and staff on these procedures and to provide training to GOTG staff and the private sector on the need for, and implementation of, environmental impact assessments. This may include the preparation of pamphlets or guidance on environmental impact assessment.

3. Increasing Public Awareness of Environmental Concerns through Non-formal Education

In order to reach the public at large, and to sensitize it to environmental problems, the solution of which requires broad public participation, public awareness campaigns will be organized. Environmental education could identify environmentally friendly Gambian practices and attitudes, as well as traditional Gambian attitudes which run counter to environmental conservation. An

example of the latter would be the Gambian practice of burning grasslands which is destructive in the long run, given the increasing population pressure facing the country. Reducing burning, and encouraging fire control in rural areas, will take a significant effort in educating the rural population as to the long-term damage that uncontrolled bush fires have on the environment.

The objective of this non-formal education would be to: (1) provide individuals with a basic understanding of the environment and associated environmental problems; (2) instill in target audiences a concern for the environment and a motivation to participate in activities aimed at maintaining and improving the environment; and (3) provide them with the skills needed to avoid or prevent environmental degradation. Examples of public-awareness campaigns might include an intensified bushfire education campaign at the beginning of the dry season, or support for National Tree Planting Day.

These campaigns may include reliance on:

- Mass media (newspaper articles and radio programs and messages) to inform the public and encourage debates on environmental issues and problems;
- Poster campaigns, exhibits and demonstrations, the distribution of T-shirts and so forth;
- Publication of newsletters, pamphlets, and annual reports on natural resource management and the environment in The Gambia;
- The MOA extension system, particularly focused on field days related to environmental topics in collaboration with extension service staff;
- Conferences, seminars, and workshops on selected environmental topics at the national level;
- Presentation of environmental programs to local communities (e.g. to schools, alkalos and seyfos, and village development committees, kafos, and other village groups) by GOTG and NGO staff; and
- Support for inter-regional farmer visits (both within the Gambia and to neighboring countries). An example might be site visits to fire ravaged areas and to areas where people have stopped burning.

Throughout the Gambia there are voluntary organizations and associations that can be effectively mobilized and utilized to promote environmentally-beneficial activities. These include

social and cultural youth organizations (e.g. Boy and Girl Scouts, Young Farmers Clubs) and producers' associations (e.g. for fishermen, livestock owners, and women's kafos). The Non-Formal Education Department of the Ministry of Education has implemented a fairly successful functional literacy program using village facilitators. This has involved the development of instructional materials in the Mandinka, Wolof, and Pulaar languages.

4. Ongoing Efforts in Environmental Education in The Gambia

There are a number of environmental education activities already underway in The Gambia. A preliminary effort at coordinating these activities was made at the **Environment Education for the Gambia Workshop**, which was held in August 1990. This workshop, which was supported by AID, brought together a range of participants to discuss ongoing environmental education programs and issues.

The **United Nations Sudano-Sahelian Office (UNSO)** is providing senior-level technical assistance to the Environment Unit of MNRE, the unit charged with coordinating environmental education efforts within The Gambia (the Environment Unit is currently staffed with one environmental education specialist). One output of the UNSO project is increased awareness of environmental issues through non-formal education. That project provides for short-term assistance in environmental education (e.g. media development) and will provide some audio-visual equipment for the Environment Unit.

The **Ministry of Education** is introducing environmental education into the formal curricula as part of a reform of the formal educational system. The target for implementing the reform, which will involve the introduction of a middle school program (i.e. six primary grades, 3 middle school grades, and 3 secondary grades) is the 1992/93 academic year. Although the curricula have been drafted, much work needs to be done in the preparation of materials (e.g. teacher guides and texts) and the training of teachers.

The EC-funded **Training Information Program for the Environment (TIPE)** is also involved in revising the school curricula (primarily for grades 4 and 5) to introduce environmental concepts. This effort is part of a regional program being implemented in collaboration with CILSS.

The Gambia Teachers College has also expressed interest in starting an environmental science program. However, so far they have lacked the technical expertise and material support needed to initiate this effort.

The **Kiang West National Park Management (KWNP) and Rural Development Plan** has proposed three sub-projects involving

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environmental education activities involving communities bordering on that National Park. The first is a Community Conservation Awareness Program to be implemented by the Department of Wildlife Conservation (MNRE). The objective of this effort is to heighten local village understanding and appreciation of natural systems and the impact of their land-use activities on the environment. It will involve meetings in the villages bordering KWNP aimed at establishing a forum in which messages on natural resource conservation will be furnished and where park management difficulties and village concerns can be addressed. The second KWNP effort involves a Visitor Center Education Program that will orient visitors to KWNP to the environment and natural history of the area. The third subproject will involve Environmental Education School Programs aimed at enhancing teacher and pupil awareness and understanding of the environment and its sustainable management.

The **Wildlife Department** is currently attempting to reinstitute mobile environmental education unit which has, in the past, perated out of Abuko. This mobile unit, which provided slide hows and other environmental education programs to local ommunities, had ceased operation due to a lack of funds. Local urrency generated from the monetization of PL 480 will be used to reactivate this mobile education program. The Peace Corps will provide volunteers to assist this effort.

The **Peace Corps** is also initiating a major Natural Resource/ Environmental Education Program as part of the joint Peace Corps/USAID Natural Resources Management Initiative. The Gambia Peace Corps program provides for approximately 55 PCVs working in three primary areas: forestry, agriculture, and education. As part of a six year effort, environmental education will become a major thrust in each of these primary areas. All incoming volunteers will receive training in environmental education and environmental education activities will be explicitly built into their programs. Over the next two years, the Peace Corps anticipates placing 20 forestry volunteers and approximately 15 agriculture volunteers. These volunteers will incorporate informal environmental education activities into their programs. A volunteer will also be placed in each of the four education resource centers operated by the Ministry of Education. Education Peace Corps volunteers will explicitly incorporate environmental education into their programs. Finally, two volunteers will be assigned to the environmental education program of the MNRE Wildlife Department.

A number of development projects have incorporated environmental education elements. An intensive educational program under the UNDP-funded Dankunku Project, was very successful at sensitizing villagers to the adverse effects of range burning. This education program, combined with a community-based system of monitoring and controlling fire outbreaks, has eliminated range fires as a problem in the area. This was accomplished using

traditional control methods, rather than through reliance on any technological breakthrough. Similarly, the Gambia-German Forestry Project has involved a large amount of grass roots consensus building and education.

Several years ago, the Chimpanzee Rehabilitation Project (CRP) complemented its work on the conservation of chimpanzees by instituting an environmental education program. The original goal of the program was to inform the public in the areas around the River Gambia National park about chimpanzees, their behavior, and threats to their existence. This was accomplished by means of two slide presentations conducted at many villages and schools around the park. The program was well received, and demonstrated that chimps can serve as an effective means of sensitizing people to the need for habitat protection and wildlife conservation. Recently, the CRP has been able to broaden its scope in order to address the variety of environmental problems facing the areas around the park. The team conducted two surveys in the area to gain a better perspective on people's attitudes toward wildlife, the bush, and the conservation of both. They have developed a nature awareness outing for youth in the area and for Boy/Girl Scout groups from the Banjul and Soma areas. Plans to institutionalize the relationship between the CRP and the Scouts are underway. Finally, plans are underway to present a series of slide programs on the environment to 17 villages surrounding the National Park. A presentation will be given every six months in each of the villages.

5. Assistance to Environmental Education Under the ANR Program

It is proposed that the ANR Support Project provide long- and short-term assistance in environmental education. This assistance will include:

- An initial 2 person months of assistance by a general environmental education specialist to outline an environmental education program;
- Approximately 24 person months of long term assistance to assist the MNRE to implement its environmental education program; and
- Approximately 8 person months of additional short-term technical assistance.

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a. The Initial Short-term Technical Assistance

In the initial 2 month TDY, a consultant would:

- **Assess the need and potential of various environmental education activities/proposals;**
- **Examine past efforts in environmental education in The Gambia, and identify lessons learned and opportunities for follow up;**
- **Identify institutions interested in environmental education (including NGOs) and assess their ability to implement aspects of the proposed program;**
- **Suggest coordinating mechanisms linking MNRE with the Ministry of Education and other relevant entities.**
- Outline an environmental education program, taking into account available human and financial resources, that would be subsequently implemented by the MNRE environmental education staff, with the assistance of the long-term environmental education advisor;
- Prepare a detailed scope of work for a long-term advisor, with clear specifications as to the most appropriate qualifications needed to implement the environmental education program.

This latter task is particularly important. There is a range of possible backgrounds or specialties that might serve credibly in the role of an environmental education advisor. For example, the individual recruited might be an expert in formal education, in grass-roots community development, in the discipline of natural resources, in communications theory, or in the technical aspects of audio-visual media. It is important that the qualifications sought match the needs of the program. Thus, more planning will need to be done before the environmental education advisor is recruited.

Performance of the initial short-term TA assignment might be carried out by the firm that is awarded the institutional contract. Alternatively, assistance in this area could be sought from another source (and perhaps obtained earlier). One source might be the USAID-funded Environmental Education and Communication (GREENCOM) Project (936-5839). The design of this centrally-funded project is not yet completed. However, it is anticipated that it will be authorized in early FY 1993 and that it will provide for buy-ins by USAID Missions requiring limited services that fall within the authorized scope of GREENCOM.

b. The Long-term Environmental Education Advisor

The long-term advisor will be provided by the institutional contractor. This individual will be responsible for working with the MNRE Environment Unit staff that have been charged with environmental education, and coordinating with other GOTG agencies and institutions. His/her responsibilities will span each of the three basic components of an environmental education program: the formal education system; training of government staff and national-level opinion makers; and public awareness campaigns.

Specific tasks of this long-term advisor might include:

- Guidance in the creation of an Environmental Education Resource Center at MNRE (this Center would be involved in collecting, adapting, reproducing, and distributing environmental education materials for use by other GOTG agencies, NGOs, teachers and extension agents);

- Assisting GOTG agencies and others (e.g. The Gambia College, NGOs) in the design of environmental education programs and activities, and in the preparation of proposals for external funding;

- Reviewing and, if necessary, proposing changes to the curricula at the primary, secondary, technical and college levels aimed to foster greater environmental awareness.

- Designing in-service teacher training programs that would be implemented by the Ministry of Education;

- Preparing instructional materials and visual aids for public awareness campaigns;

- Identifying in-service training needs, and designing and implementing in-service training programs for GOTG staff and for journalists, religious and community leaders, and others who influence public opinion;

- Developing, in conjunction with Gambian media, newspaper articles, radio programs and messages concerning environmental issues and problems;

- Working with NGOs to develop non-formal environmental education programs, particularly within the context of the preparation of Resource Use Agreements;

- Developing, in conjunction with the MOA Department of Agriculture Services, extension messages related to environmental conservation and sustainable agriculture;

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- Preparing newsletters, annual reports, etc. on environmental issues and natural resource management in The Gambia;

- Planning conferences, seminars, and workshops on selected environmental topics at the national level;

- Designing a program of environmental education aimed at local community groups; and

- Promoting and arranging inter-regional farmer visits.

The responsibilities of this individual would span the environmental education planning process. The first step in this process is to identify the environmental problems and potential environmental education activities which can help solve them. The second step is to identify the target audience. The third step is to determine the appropriate program message and content. The fourth task is to select the communication/extension strategy that is most suitable and effective for reaching the target audience. Once the strategy is implemented, the advisor will be involved in evaluating its impact.

An evaluation of the effectiveness of the environmental education component will be undertaken before the end of the two-year tour of the environmental education advisor. Based on the conclusion of that evaluation, and the availability of funds, consideration will be given to extending this position.

c. Supplemental Short-term Technical Assistance

Of the 8 person months of additional short-term technical assistance envisioned, 4 person months would take place concurrently with the long-term advisor. This would involve the provision of specialized technical assistance in areas in which the long-term advisor does not have sufficient expertise (perhaps workshop specialists, media experts, or experts in curriculum design for example). The needs assessment will be made by the long-term advisor (who will prepare the scope of work), in collaboration with senior MNRE staff.

The remaining 4 person months will be provided after the departure of the long-term advisor, to ensure follow-up and the provision of continued guidance to the environmental education staff of the Environment Unit. Preferably, this would consist of the periodic return of the advisor for one month every six months. During these TDYs, the advisor would monitor progress by the MNRE staff in continuing the environmental education program, and providing assistance and guidance as necessary.

d. Commodity Procurement

Funding is budgeted under the ANR Program for equipment and supplies for the proposed Environmental Education program. The following list is indicative. A more exact list will be prepared by a short-term technical advisor once implementation begins.

Table M-1: Indicative Commodity Procurement List for the Environmental Education Program

Item	Cost ($)
Audio viewer and projector	2,150
Overhead Projector	1,000
LCD Panel	1,700
Transparency Maker	1,700
16 mm Projector	2,200
Visualizer	3,000
Screens (2)	600
Flip Charts (2)	800
Slide Sotrage and Viewing Cabinet	3,000
Photographic Chemicals, Films, Papers	10,000
Film and Paper Processors and Dryers	7,000
VCR/Television Equipment	8,000
Duplicaating Machines, Storage Cabinets, Poster Production Materials	30,000
Miscellaneous	850
Total	72,000

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ANNEX N: ENVIRONMENTAL INFORMATION SYSTEMS AND MONITORING

ANNEX N: ENVIRONMENTAL INFORMATION SYSTEMS AND MONITORING

A. The Need for Environmental Information and Monitoring

Planning in the natural resource sector has been constrained by a lack of accessible data. Recognizing this, the sector strategies included in the GOTG's Programme for Sustained Development (1990) gives high priority to carrying out an "Assessment of the State of the Environment". This assessment is to be undertaken with a view to "assessing the extent and severity of the principal environmental problems".

The need for improved information is echoed and elaborated in the Gambia Environmental Action Plan (GEAP). One of the three target programs elaborated in the final draft of the GEAP is "natural resource management." Within this program area, one of the five aims is "to establish procedures for data collection, analysis, and planning for natural resource management."

With this goal in mind, MNRE has initiated the development of an Environmental Information System (EIS). Two UNSO consultants, a natural resources and environmental monitoring specialist and an environmental information systems specialist, are expected to carry out a data needs assessment and initial information systems design by late August, 1992. The output from their missions should include a program for establishment of environmental information systems and a prioritized list of data collection areas necessary for planning and monitoring in the sector.

With the same interest in monitoring the environment, the U.S. Government has established requirements for reporting on any possibly deleterious impacts its assistance program may have in participating countries. Environmental monitoring of A.I.D. development activities is required by regulation 22-CFR-216, commonly referred to as Reg. 16. Reg. 16 requires environmental reviews and monitoring and provides in its chapter 216.3(a)(8) that:

> "To the extent feasible and relevant, projects and programs for which Environmental Impact Statements or Environmental Assessments have been prepared should be designed to include measurement of any changes in environmental quality, positive or negative, during their implementation. This will require recording of base line data at the start. To the extent that available data permit, originating offices of A.I.D. will formulate systems in collaboration with recipient nations to monitor such impacts during the life of A.I.D.'s involvement."

Section 496 of the Foreign Assistance Act, which sets out

the terms of the Development Fund for Africa (DFA), requires that "policy reforms shall also include provisions to project...long term environmental interests from possible negative consequences of the reforms".

Addressing the problems of the environment demands better and more accessible information. A process must be established whereby information that is deemed important is archived and retrievable. This necessitates the creation of an environmental data collection and reporting system that is sufficiently accurate to establish baseline conditions and measure changes in those conditions over time. It will also require the development of effective procedures for linking decision makers and technicians.

B. ANR Support for MNRE's Environmental Information System

The Agriculture and Natural Resource (ANR) Program will address the information constraint of the GOTG through the establishment of an Environmental Information System (EIS) in the Ministry of Natural Resources and the Environment (MNRE).

"Information system" is used here in the broad sense of the term -- to refer to technical, material, and institutional input which enables information resources to be more broadly accessible. Thus, although computerized data bases or centralized information-producing units will form one part of the system, the whole goes beyond purely technical concerns. Building the MNRE's capacity to access and use information will be of the highest priority, regardless of the media. Hence much of the information included in the system is likely to be in hard copy rather than computer format.

The term "environmental" in EIS includes not only the physical and natural environment, but also information on population trends, agro-ecological zones, current land use and tenure, hydrological data, vegetation types, consumption patterns, marketing systems, income distribution, administrative boundaries, infrastructure and other human factors which determine how physical and natural resources are used.

It is not the responsibility of the ANR Program, in supporting the MNRE, to be the sole collector of natural resource data. Extensive data is already available from earlier studies in The Gambia and from on-going data collection efforts of technical departments. Extensive data collection efforts are referenced in the Natural Resource Annex of the Agricultural Support Services and Natural Resources Management Project: Preparation Report (FAO/World Bank, 1991). Line departments collect much of the information listed above, including select hydrological data (Department of Water Resources), income,

population, and market price data (Central Statistics Department), and rural socio-economic data (Department of Planning - MOA and Central Statistics Department), to name a few.

The EIS activities in the ANR Program will support priority data collection areas necessary for improved policy planning (e.g., an updated resource inventory using aerial photographs), while focusing also on aggregating and integrating information already available or generated by technical departments. Sound natural resource management planning will require a capability to synthesize data sets to meet specific needs. To accomplish this task, an EIS will be useful.

The information system supported by the ANR is distinguished from the more common "Geographic Information System (GIS)". The EIS is not designed to support the establishment of a high-technology system, as is often connoted by the use of the term "GIS". "GIS" has typically implied an emphasis on computerized data systems to the exclusion of non-computerized data sources. The EIS will support the organization and dissemination of data irrespective of media. The ANR Program, because of its limited funding capacity and need to remain focused, must, where possible, limit its support to "natural resource" information. Hence expenditures under ANR for data collection and processing of such variables as air pollution, water pollution, coastal erosion, and additional environmental variables outside natural resources would not be supported.

Although linkages may exist between the GOTG's objective of establishing an EIS and its interest in developing the capacity for extensive land use planning (as per the GEAP), the ANR program is not expected to support this second objective. Establishment of a land use planning capability risks absorbing extensive resources from the Program while diverting limited resources from the EIS objective.

The EIS efforts of the ANR Program will thus have three components:

- Strengthening the MNRE's facility for managing an Environmental Information System;
- Support for an aerial survey and interpretation; and
- Priority data collection support for natural resource areas identified by the Planning and Environment Units.

In the remainder of this annex, the EIS activities within the ANR Program are detailed.

C. Component 1: Environmental Information Systems (EIS) Facility

Enhancing the MNRE's facility for maintaining an Environmental Information System (EIS) is expected to involve Support Project assistance for equipment purchase, GOTG staff training, and short- and long-term technical assistance. The exact components of Support Project assistance detailed below and in the budget are illustrative and will be subject to change pending an assessment by the GOTG and the institutional contractor.

Since the information to be collected and managed is as likely to be in written media as in computer format, equipment purchase, training and technical assistance will address these broader concerns. The upcoming UNSO project in the MNRE, however, will fund a documentation specialist for an expected period of four years in the Documentation Center of the Environment Unit. Technical assistance, training, and equipment for the development of an EIS will complement, but not duplicate this capacity.

The budget attached at the end of this annex details a program for support to an EIS. Most of the budgeted items are self-explanatory, although they are intended to be flexible enough to allow for changes in the stated priorities of the GOTG and the technological changes which rapidly occur in the field. It is envisioned that only one high storage capacity machine will be purchased for the purposes of the EIS. Although an IBM-compatible PC, this machine should have at least 300 megabytes of storage space, a 486 chip, a high resolution color monitor and a high resolution printer. Additional computers purchased under the project will have sufficient storage space, speed, and resolution to make use of software and media developed as part of the EIS. However, these requirements should be met through the purchase of machines compatible with those already in use in The Gambia. Efforts should be made to purchase both hardware and software which is familiar and in use in The Gambia.

The illustrative training budget is designed to allow for the upgrading of mid-level specialists through diploma courses in information systems along with both short-term and in-country training. The scope of work of the long-term technical advisor to be provided to the MNRE will include assistance in the establishment of an EIS within the MNRE.

D. Component 2: Aerial Photography and Interpretation

1. Needs Assessment

Aerial photography provides an image base from which to

interpret land surface features and to transfer the spacial and descriptive information to base maps. They serve in Survey Departments to map roads, villages, and topography, while also lending themselves to mapping the extent and location of natural resources (i.e. soil, forest, water) and describing spatial characteristics of the resource unit (i.e. forest canopy density, soil types, and so forth). The need to achieve these multiple purposes must be taken into account when making choices as to the photography's scale, film type, filters to be used and date of collection.

The most recent photo coverage in the Gambia was done in 1982 by Mark Hurd in black and white panchromatic at 1:50,000 scale. Previous coverage by Teledyne for the Gambia Mixed Farming and Resource Management Project was color infrared at 1:25,000 scale in 1980. Previous comprehensive coverage at 1:50,000 scale is available in 1972. The proposed coverage will therefore provide a 10 year sequence allowing the opportunity to address changes in surface features over 20 years. For example, between 1972 and 1980, an estimated 67 percent of the closed woodland (greater than 50 percent canopy cover) deteriorated to open woodland (less than 50 percent canopy cover). The new photography will provide an update to the early 1990s. Aerial photography provides the only means to cost effectively make these observations.

2. The Gambia Map Base

The Gambia is divided into 1:50,000 and 1:125,000 scale quads as their published map base. There are 20 sheets of 1:50,000 and 4 sheets of 1:125,000. The original maps were based upon 1970 aerial photography at 1:25,000 scale. A planimetric update locating villages, roads, etc. and correcting geographic names was accomplished based upon the 1980 and 1982 photography via a South Dakota State University and Department of Survey Study. Water supply wells for villages, roads and their classification, place names, communication lines, survey measurements, and administrative boundaries are plotted on the maps. These base cartographic maps will be used as controls for registration and compilation of map information derived from the aerial photography. In addition, the existing update should be further updated and corrected maps printed for distribution.

3. Specifications for Photography Coverage

Since the photography will serve both for base map updating and for resource inventory, scales of 1:25,000 are most appropriate. If smaller scales are collected, many features to be mapped are too small and are not resolved (i.e. canopy density). If larger scales are collected (i.e. 1:10,000),

smaller features can be mapped, but the numbers of photographs that must be collected increase by the square of the scale difference, making handling, archiving, and management of the data more difficult.

It is recommended that, since the photography will be used for resource analysis, especially of vegetation, color infrared images be used. This creates a special problem in that color film and processing are probably not available in The Gambia and that the processing would have to be completed by the data collector at his home base. This is not entirely problematic as it has the advantage of keeping costs at a minimum (due to volume processing in the U.S. or Europe) and maintaining quality control. The film could be processed, duplicated, and prints made all at once in a well-equipped quality facility. A film positive can be delivered to The Gambia for black and white printing of the color infrared, which provides a clearer image that black and white panchromatic in any case.

The photography would have to be taken during the start of the dry season, to avoid cloud coverage and permit complete country coverage as well as avoid interference from the extensive burning that occurs later in the dry season. Therefore, the specifications should include: color infrared 9 inch coverage; October/November coverage; 60 percent end lays for stereo viewing; 20 percent sidelap; metric mapping camera; and no more than 3 percent cloud coverage country-wide, with no more than 10 percent cloud coverage of any individual frame. Technical criteria on film densities and so forth must also be included in the specifications. Deliverables would include: the original film positive; first generation duplication of film positives (two copies); control paper prints (four copies); and microfilm of each scene with a unique identification number on each frame (three copies).

A long-term technical advisor would be provided for 18 months (12 months as a resident advisor with 6 additional months of follow up) with the primary role of completing a resource inventory using results from the aerial survey. Supported by short-term technical assistance, he/she would work closely with the appropriate staff members of the MNRE in a technical training capacity. Diploma recipients in EIS (see Item I. in budget) would be trained to work with aerial photography and mapping as part of their training program. Short-term and in-country training would be included.

E. Component 3: Priority Data Collection Support

The Gambia is currently carrying out an environmental information needs assessment. Output from the effort will include a framework for carrying out EIS in The Gambia and a

prioritized list of data needs essential for proper environmental and natural resource management. The ANR program will use this needs assessment as a starting point for its targeted support of priority data collection areas. The identified areas for data collection listed below and in the attached budget are illustrative and may be changed pending input from the MNRE and the Institutional Contractor.

While it is not possible to know the outcome of the information needs assessment, certain priority data collection areas would be likely to be included. The GEAP identifies burning, for example, as a fundamental problem of natural resource degradation. Yet little is known about the extent, breadth, and timing of burning, nor about how burning practices have changed in recent decades. It is likely that the ANR program would support a study of brush burning, including an assessment of its pattern and intensity.

Other likely data collection areas would include: a study of fuelwood consumption and marketing, necessary as a prelude to appropriate policy recommendations in the sector; a study of the extent and severity of soil erosion; and a repeat of the baseline study to assess changes in rural natural resource practices.

F. Ensuring the Sustainability and Appropriateness of The Gambia's EIS

Donor efforts at assisting in information system development in agriculture and natural resources in The Gambia have often been frustrated by a lack of sustainability. A multi-market and multi-product agricultural market price system supported in the mid-1980's produced no data after the close of the project supporting it. A multi-visit and multi-variable household survey program collected extensive data on income and expenditures in the same period, but most of the data was never summarized or analyzed. As the project supporting the household survey closed, the technicians capable of interpreting the computer programs left with it. One probable reason that these efforts have proved unsustainable is that information systems were often created without appropriate consideration of in-country needs or technical capacity.

The ANR Program's assistance to EIS is designed to be both appropriate and sustainable. An appropriate system is one which meets the stated information needs of data users in the sector, while one which is sustainable takes into account the human and material resources both within and outside the GOTG for maintaining a system. With these constraints in mind, it is necessary to outline some guidelines for The Gambia's EIS which would help in ensuring both an appropriate and sustainable system.

First, technical assistance should be capable of training as well as providing technical input. The long-term technical advisor provided to the MNRE will be a resource inventory specialist familiar with information systems, rather than an information systems specialist. Short-term technical advisors will work with counterparts for the entirety of their missions.

The purchase or compilation of extensive data bases or map reproductions from external sources will be undertaken only if explicitly demanded by end-users. Although extensive information is available from abroad at low average cost per unit, such information may not serve the immediate needs of data users in The Gambia.

Recent years have seen the rapid development of in-country capacity to maintain and service IBM-compatible PC-based software and hardware. Virtually all equipment purchased for the EIS will be repairable in-country. Mini-mainframe work stations and operating systems (e.g., UNIX) which are unfamiliar to Gambians are not expected to be supported by the ANR program. Although a large capacity computer may be needed for EIS, it should be a PC-based computer that can be repaired by the growing contingent of expertise in-country. Any consideration of purchasing expensive machinery for color map reproduction should take into account the limited facilities for sustained input supply (colored ink, etc.).

G. Environmental Monitoring and The Gambia's EIS

The EIS supported by the ANR program will generate extensive environmental monitoring information. The EIS efforts of the program will link on-going and historical data collection by the GOTG, results of an aerial survey, and results from NGO data collection in target villages. Results from these three areas will allow proper monitoring of bio-physical impacts of the Program.

The need for a monitoring system was recommended in the ANR PAIP Initial Environmental Examination. This is required by Reg. 16 when adverse impacts on the environment are not clear or anticipated, especially for policy reform activities. The ANR Program has different components that are assessed in the following paragraphs for monitoring needs. For each ANR Program component, indicators, as well as methods of measurement and analysis, are defined.

The ANR monitoring system feeds into the EIS system, and data collected will be made available to other GOTG institutions and donor agencies through reports and/or direct access to raw data. The purpose is to observe changes in the environment and natural resource base, in order to make relevant adjustments for

sustainable natural resources management.

An appropriate environmental monitoring system as required by U.S. government regulation requires that a baseline survey be undertaken prior to program commencement. Among the first actions of the ANR Program will be to consolidate and organize the extensive baseline data already available in The Gambia. The MNRE with the assistance of two UNSO short-term technical advisors has already initiated this process. As the MNRE prioritizes areas for data collection, the ANR program will assist in adding these baseline areas to the environmental information system.

Typically, environmental monitoring systems entail baseline data collection and on-going monitoring for selected baseline sites. In the ANR program, these baseline sites will be the villages/areas where participating NGO's are active. They will be required, as a condition of grant receipt, to monitor environmental variables in these areas.

1. NPA Component Monitoring

The ANR policy reform program is aimed at improving natural resource management practices. However, a careful follow up should be implemented to detect unforeseen adverse effects on the environment and natural resources. Section 496 of the Foreign Assistance Act, which sets out the terms of the DFA, especially requires that policy reforms should "include provisions to project...long-term environmental interests from possible negative consequences of the reforms". The kinds of policy reforms that are likely to have an impact on the environment in the long-run should be identified and monitored.

The monitoring system is a continual efforts which will feed back into the project implementation process to flag adverse effects and allow appropriate revision of the project actions.

Major ANR policy reforms that might have either negative or positive effect on the environment are:

- Effects on cattle marketing and production which might result from changes to the Livestock Marketing Act. Monitoring requirements would cover variables such as cattle numbers, cattle transfer across the border, range carrying capacity, number of cattle marketed, and total off-take. Many of these issues are already monitored through the International Trypanotolerance Center and the Department of Livestock Services, although strengthening or supplementing this monitoring capacity may be necessary.

- **Results from the partial allocation of revenues from park and protected areas and forests to line agencies. The effect on the parks, protected areas and forest management would be of special interest.**

- **The impact of the revision of forestry fees, schedules and royalties. This might effect the rate of exploitation of forest resources. Some variables to be monitored include the number of permits delivered, the annual amount collected from fees and royalties, and the extent of illegal exploitation.**

- **Development of community resource management agreements. Variables to monitor include the effect on the quality of forest management (vegetation cover rates, quality of habitats), rate of clearing, burning, grazing intensity, and the intensity of land use.**

2. Projectized Component Monitoring

Projectized components of the ANR project, aside from the NGO grants, include primarily technical assistance. These do not appear to have foreseeable adverse effects on the environment and natural resources. Therefore, monitoring need not be carried out for the activities involved in this component of the ANR Program.

3. NGO Grant Program Monitoring

The methodology for environmental monitoring on NGO target sites involves a number of steps. Samples will be taken at regular intervals on the same site so that data are comparable. Field site locations are identified using topographical maps, and thus the resulting information associated with the site can be easily inserted into the EIS.

Data organization and management will proceed as follows: in the field, accurately locate sample site locations in the field and on aerial photos and report them to the EIS; verify the representativeness of site and the appropriateness of collected data; complete appropriate field sheets; in the main office, make copies of all field sheets; create dossiers specific to each sample site; and enter and summarize data.

The grant is provided to NGOs to carry out natural resources management activities, at the village level, including forestry, wildlife, soil and water conservation, and livestock/range management. For activities in forestry, indicators to be monitored include vegetation cover rates, forest product yields including fuel wood and construction material, density and diversity of vegetation cover. Indicators for the impact of soil

and water management exercises include crop yields, erosion rates, runoff/silting rates, soil moisture, soil productivity. Livestock and range management activities of NGO's should be monitored at the village level through tracking of such variables as availability of animal feed, quality of pasture land, number of cattle marketed, and income from cattle marketing.

H. The Institutional Context

According to the GEAP, the Environment Unit and Planning Unit will be involved in the process to differing degrees. While the GEAP proposes that the Environmental Unit "establish an environmental information system", it is the Planning Unit which is given the role of "systematically incorporating micro- and macro-economic research and statistical information into analysis and planning of the sector." Together, the Planning Unit and Environmental Unit are expected to "systematize and coordinate the current data collection task of the technical departments by designing and developing appropriate data collection instruments and sampling methods, and assist in collating, analyzing and storing of collected data centrally in an easily accessible and retrievable data bank."

Although the EIS will be located in the MNRE, there will necessarily be links to other Ministries in the GOTG. The aerial survey will be closely coordinated with the Department of Lands and Surveys in the Ministry of Local Government and Lands. Information summary from the aerial survey and other studies supported by the ANR program would be carried out with the active participation of appropriate line departments, although it is expected that the Forestry Department, given the experience in resource inventories, will take the lead technical role. The Gambia National AGRHYMET unit in the Department of Water Resources (NAC), recently received a computer system and software to manage and use greenness data from AGRHYMET and would be expected to be involved with computer developments in environmental information systems. ILCA and other organizations use the summary of the greenness data to monitor the development and production of biomass.

In the sub-region, the Ecological Monitoring Center (CSE) in Dakar, Senegal, has developed an environmental information system with a special expertise in the monitoring and study of brush burning. Close links for training, information sharing, and methodological issues, will be established with the CSE.

I. Draft Scope of Work for the Long-term Technical Advisor in EIS

The long-term technical advisor to the MNRE will be a

resource inventory specialist with experience in environmental information systems and micro-computers. In addition to working with the Policy Analyst under the Institutional Contractor, he/she is expected to work in cooperation with the Principal Environment Officer (Environment Unit) and the Principal Planner (Planning Unit). The terms of reference will include the following activities:

- Assist in interpreting the aerial survey and in producing an updated land resource inventory for The Gambia. This would include advising technical departments on methodologies for summarizing and interpreting data from the aerial survey.

- Assist in establishing an environmental information system in the MNRE which would access suitable data sources from within the country and provide various government and non-government users with access to natural resource data;

- Facilitate the coordination and continuing flow of accurate and, as far as possible, detailed general environmental statistics for policy analysis, monitoring and evaluation and project development;

- Summarize and provide data analysis for the monitoring of Mission program impact in the sector and other environmental impacts of the ANR program;

- Ensure that data collection recommendations conform to with standardization procedures recommended for information systems;

- Assist in the design of special data collection studies funded under the ANR program; and

- Train designated MNRE staff in the use of resource inventories and the environmental information system.

J. Summary Budget for EIS

On the following pages, a summary budget for the Environmental Information Systems components of the ANR program is attached.

ILLUSTRATIVE ENVIRONMENTAL INFORMATION SYSTEMS BUDGET[1]

Mon, 3 Aug 92, 2:15pm

Description of Project Areas	Unit Price	Unit	FY 93 (12 mo)	FY 94 (12 mo)	FY 95 (12 mo)	FY 96 (12 mo)	FY 97 (9 mo)	LOP Total
I. EIS FACILITY								
A. Equipment								
o Photocopy machine, cabinets, microfilm readers			50,000	0	0	0	0	50,000.00
o Computers - One IBM-compatible PC with large storage (approximately 300 megabytes) capacity capable of operating EIS software (estimated $12,[illegible]0) plus additional PC's, printers, and periphery equipment ($6,000 per set).			36,000	0	0	0	0	36,000.00
o Digitizing tablets	7,000	one	0	7,000	0	0	0	7,000.00
o Operating supplies, maintenance, licenses, etc.	5,000	year	0	5,000	5,000	5,000	5,000	20,000.00
o Software (EIS, data management)			4,000	0	0	0	0	4,000.00
B. Training in EIS Methodology								
o Diploma Training (these Diplomas concurrently cover resource inventories, aerial photography interpretation and EIS training)	30,000	year	30,000	30,000	0	0	0	60,000.00
o Short-term training in US (software and hardware)	8,000	month	0	0	8,000	0	0	8,000.00
o Joint training with the CSE in Senegal	1,000	week	5,000	5,000	5,000	5,000	5,000	25,000.00
o In-country workshops on EIS (includes rental of computers, site rental, materials)	3,000	week (10 trainees)	3,000	9,000	6,000	6,000	6,000	30,000.00
C. Short-term Technical Assistance								
o Refining of EIS program using output from Diagnostic process	20,000	month	20,000	0	0	0	0	20,000.00
o Technical support to LTTA and EIS managers	20,000	month	0	20,000	10,000	0	20,000	50,000.00
o Design and operation of EIS training courses	20,000	month	0	0	10,000	0	20,000	30,000.00

[1] This budget is organized by activity as opposed to by financial line item and thus, the categories do not correlate exactly with those in the budget within the PAAD and Annex C. However, the amounts allocated to EIS activities in this budget are in accordance with the PAAD and Annex C budgets.

Description of Project Areas	Unit Price	Unit	FY 93 (12 mo)	FY 94 (12 mo)	FY 95 (12 mo)	FY 96 (12 mo)	FY 97 (9 mo)	LOP Total
o Miscellaneous short-term assistance	20,000	month	0	0	20,000	0	20,000	40,000.00
Sub-total - EIS Facility			148,000.00	76,000.00	64,000.00	16,000.00	76,000.00	380,000.00
II. AERIAL SURVEY AND INTERPRETATION								
A. Aerial photography (see specifications in text to Annex)	300,000	complete survey	0	300,000	0	0	0	300,000.00
B. Equipment (includes film browse capability, filing equipment, light tables, zoom transfer equipment, map compilers)			0	0	50,000	0	0	50,000.00
C. Training								
o Short-term training in US (interpretation and use of maps)	8,000	month	0	0	16,000	8,000	0	24,000.00
o Joint training with the CSE in Senegal	1,000	week	0	5,000	5,000	5,000	5,000	20,000.00
o In-country workshops on aerial photograph interpretation and use	3,000	week (10 trainees)	0	12,000	6,000	6,000	6,000	30,000.00
C. Short-term Technical Assistance								
o Training in photo interpretation	20,000	month	0	20,000	50,000	20,000	0	90,000.00
o Assistance in archiving/retrieving procedures	20,000	month	0	0	0	10,000	0	10,000.00
o Assistance to develop user services and protocols	20,000	month	0	0	10,000	0	0	10,000.00
Sub-total - Aerial Survey and Interpretation			0.00	337,000.00	137,000.00	49,000.00	11,000.00	534,000.00
III. PRIORITY DATA COLLECTION SUPPORT[2]								
A. Satellite Study of Range Burning and Biomass								
o Materials (purchase of satellite data, computer interpretation, etc.)			75,000	0	0	0	0	75,000.00
o Short-term technical assistance	20,000	month	20,000	0	0	0	0	20,000.00
B. Fuelwood Consumption and Marketing Study								
o Materials			0	25,000	0	0	0	25,000.00

[2] Priority Data Collection Support areas described here are only tentative. As the MNRE further refines their data collection priorities, these topics may alter or change altogether.

Description of Project Areas	Unit Price	Unit	FY 93 (12 mo)	FY 94 (12 mo)	FY 95 (12 mo)	FY 96 (12 mo)	FY 97 (9 mo)	LOP Total
o Short-term technical assistance	20,000	month	0	10,000	0	0	0	10,000.00
C. Support for addition surveys as prioritized during EIS needs assessment. These surveys would also include support for an EOP repeat of components of baseline survey.			0	30,000	10,000	20,000	25,000	85,000.00
Sub-total - Priority Data Collection Support			95,000.00	65,000.00	10,000.00	20,000.00	25,000.00	215,000.00
IV. EIS LONG-TERM TECHNICAL ASSISTANCE TO MNRE (12 months continuous presence in-country followed by periodic short term visits in succeeding years.)			0	210,600	45,392	22,696	0	278,688.00
Sub-total - EIS Long-term Technical Assistance			0.00	210,600.00	45,392.00	22,696.00	0.00	278,688.00
V. BUY-IN TO TECHNICAL ASSISTANCE FROM WRI CONSULTATIVE GROUP ON EIS	20,000	month	0	36,000	0	0	0	36,000.00
Sub-total - Buy-in to TA from WRI Consultative Group on EIS			0.00	36,000.00	0.00	0.00	0.00	36,000.00
TOTAL EIS COSTS			243,000.00	724,600.00	256,392.00	107,696.00	112,000.00	1,443,688.00

ANNEX O: THE DEPARTMENT OF WILDLIFE CONSERVATION AND SUPPORT FOR COMMUNITIES BORDERING KIANG WEST NATIONAL PARK

ANNEX O: THE DEPARTMENT OF WILDLIFE CONSERVATION AND SUPPORT FOR COMMUNITIES BORDERING KIANG WEST NATIONAL PARK

I. Executive Summary

MNRE's Department of Wildlife Conservation (DWC) will be involved in the ANR Program in several ways:

- **DWC will be closely involved in any planned community development activities bordering on the Kiang West National Park. It is envisioned that some of the funds allocated to NGO Grants will be directed at those communities;**

- The ANR Program proposes NPA conditionality aimed at permitting the DWC to retain a portion of the revenues gained through gate receipts from the Park and Protected Areas System, and that park development funds be established as treasury accounts for use by the DWC for investments in the park and protected area infrastructure and for programs with communities bordering the park.

- The DWC, along with other Departments within MNRE, will benefit from short-term technical assistance (primarily linked to laying the groundwork for the attainment of the policy conditionality), long-term training under the ANR program (two-year certificate training for selected DWC staff members), and short-term and in-country training under the ANR Support Project. The two-year certificate training would take place at the Mweka College for African Wildlife Management in Tanzania or another competent African institution.

II. Background

The Department of Wildlife Conservation (DWC) within the MNRE is responsible for the stewardship of the Parks and Protected Areas in The Gambia. This system comprises three national parks, one bird preserve and one nature reserve, of which only the Abuko Nature Reserve is a fully functioning visitor area.

Until recently, the DWC was severely understaffed and underfunded, with solely enough resources to manage the Nature Reserve at Abuko. An increase in total staff from 27 to 36, as of July 1992, will assist the DWC to more effectively carry out its mandate.

Although the Abuko Nature Reserve is currently the only developed entity within the National Park and Protected Areas

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System, efforts have been underway since 1990 to assess the feasibility of, and subsequently design, a management plan for the Kiang West National Park. This work has been supported by USAID, through grants through the Biodiversity Support Program (BSP).

The results of these efforts have shown that Kiang West National Park has strong potential to become a functional National Park, with benefits accruing to the DWC in the form of fees and to local communities in terms of tourism revenues and the long-term benefits of an intact ecosystem.

The management plan developed by the BSP Team presents a component concept that involves both activities both within the Park and in communities outside of the Park. While coordinated, each component may be funded by different donors. USAID, through the ANR Support Project, will continue to support the KWNP concept by awarding a grant of up to $400,000 to an NGO for natural resource management activities in the communities bordering the Park within the framework of Community Resource Management Agreements (CRMAs). Although the details of community activities are not yet specifically determined, they will adhere to the general principles and activities of the ANR Program. Additional support will be in the form of training and short-term technical assistance.

III. Institutional Setting

Department of Wildlife Conservation

The Department of Wildlife Conservation (DWC) was established in 1977 to "...assure that wildlife is rationally managed and conserved so as to yield to The Gambia in general, and to individual areas in particular, optimum returns in terms of ecological, cultural, aesthetic and scientific gains as well as such economic gains as are incident to the proper wildlife management.".

The DWC, formerly the Wildlife Conservation Unit, has been a full department within the MNRE since 1981. The DWC derives its legal mandate from:

- The Wildlife Conservation Act of 14 February 1977;
- The Wildlife Conservation (Sale) Regulations, 1977;
- The President's Banjul Declaration of 18 February 1977;
- Legal notices 32 (behavior in parks, fees) and 36 (expansion of Abuko Nature Reserve), both published in 1978;

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- The River Gambia National Park Order, 1978; and
- Kiang West National Park Order, (Legal Notice Number 10 of 1987).

The wildlife and protected areas system in The Gambia can be broken down into the following categories, with the years they were officially gazetted:

- Nature Reserves (Abuko-1977);
- National Parks (Kiang West-1987, The River Gambia-1978, Niomi-1987); and
- Bird Preserves (Tanji-1992).

The total land area in protected areas is approximately 20,620 ha, or 2 percent of the total land area in The Gambia. The Bau Bolong wetlands area, across The Gambia River from Kiang West National Park, is currently in the early phases of being given national park status. This area, not yet demarcated or gazetted, comprises approximately 3,500 ha (A. Camara, pers. comm., 1992).

Since becoming a full department, the DWC has been slow to expand its budget to meet the need for competent scientific and non-scientific staff, operations, and investment financing necessary to create visitor-possible park areas. As of April 1992, the Abuko Nature Reserve is the only fully functional unit of the Park and Protected Areas System, in terms of conservation, tourist visits and environmental education.

IV. Legislative and Policy Status

There has been no legal change in the enabling legislation of the DWC since 1977. Hunting fees and licenses, as well as gate receipts from Abuko, have been increased sporadically over the years. Such increases are at the discretion of the Director of DWC. Although fee increases are an obvious means to increase revenues, care must be taken not to price Gambian citizens out of range of these activities, as the reason for establishing protected areas is, among others, the "benefit and enjoyment of the general public" (WCA, 1977).

In order for any legal, regulatory or policy change to take place, the Director of the DWC initiates the change, which is then submitted to the MNRE. A regulatory change can be approved by the Minister of Natural Resources and Environment, and any legal change, such as to the Wildlife Conservation Act of 1977, needs to be submitted through the Minister for Parliamentary approval. The time it takes to enact a policy change or for a new policy to be adopted depends on the policy in question. Once a policy is

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forwarded from the DWC, it takes approximately 3-4 months to pass the ministerial level.

At present there is no policy document per se for the DWC, although a restructuring plan to reflect the needs of a functional National Park and Protected Area System has been submitted, through the Minister of the MNRE, to the Personnel Management Office (PMO) in the Office of the President.

The following was proposed by DWC to MNRE:

1. To review and pronounce on the proposed new staffing pattern (Scheme of Service);

2. To create the positions proposed for the 1992-93 estimates (partially done, April 1992);

3. To adequately budget for the positions; and

4. To approve the proposed organizational and functional structure for the DWC.

This proposal states "Unless protected area management and its manpower development are regarded as a profession, seriously pursued and the necessary field equipment provided, effective management of wildlife and protected areas in The Gambia remains wishful thinking.". Given the current situation, this statement is far from hyperbole.

V. Current Staffing and Determined Need

The current staffing of the DWC (April 1992) is 27, of which two staff members can be considered as adequately trained professionals. Three other staff members, trained to the "O" level, fulfill important functions with the conservation education mobile unit, and as conservation guides at Abuko. One staff person is assigned each to Kiang West and River Gambia National Parks, and the remainder are lower-level field workers and support staff for Abuko. Except for the extension work performed by the mobile unit, current staff is sufficient to maintain only Abuko. The staff is considered largely inadequate to manage a Protected Areas System of over 20,000 ha, which makes the Protected Areas outside of Abuko only "paper parks".

However, nine new positions for the Department were approved by the government in May 1992. These new posts will become functional in July 1992, at the beginning of the fiscal year. This staff increase comes at a time when government hiring limits are strictly adhered to, and demonstrates the high level of commitment and importance that the GOTG places on the mandate and activities of the DWC.

Overall long-term staff needs, including the nine new posts, are considered to be: three M.S. wildlife biologists; six B.S. wildlife professionals (one per division); five wardens trained to High National Diploma level; and, five low-level technicians trained to Ordinary National Diploma level. The recent addition of nine staff positions greatly increases the capacity of the DWC, and will allow the Department, and the Park and Protected Areas System, to increase activities and lay the groundwork for future growth.

VI. Revenues

In fiscal year 1990-91, the Abuko Nature Reserve earned 460,199 dalasis[1] from approximately 30,000 visitors. All of this money went directly into the national treasury. The Department budget for fiscal year 1991-92 was 435,150 dalasis. Although it appears from the above figures that the Department receives funding nearly equal to what is raised at Abuko, this is not the case, as both tourism revenues and the government allotment fluctuate each year. Regardless, the current annual budget is sufficient solely for the operations of the Abuko Reserve. Thus there are no benefits currently provided to fund the development and operations of other parts of the System.

Additional income for the DWC comes from the issuance of hunting licenses and rent from concessions in Abuko Reserve. This latter is a relatively small amount of 2,400 dalasis/year (400 D for the tourist shop and 200 D/year for in-park small concessions). Sales from publications and maps also bring in some revenue.

Redirecting revenues earned through DWC activities to a special fund within the Department for development and operational needs is a conditionality of the ANR Program. Examining the details of the change in the revenue structure will be a priority of ANR's Policy Advisor, with the assistance of short term TA and, of course, the DWC.

VII. Development of Protected Areas

Abuko remains the only part of the Park and Protected Areas System with any kind of infrastructural development, or that performs any of the real conservation or education functions for which these areas are established. Development activities, in the form of baseline studies, have been already undertaken in Kiang West National Park, and planning for the park continues. This work has been done with funds from USAID through the Biodiversity Support Program. Ultimately, it is the GOTG's intention to develop the small but fragile Bird Preserve at Tanji, and Niomi National

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[1] $1 US = approximately 9 dalasis, April 1992.

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Park, which is a contiguous ecosystem and valuable complement to neighboring Senegal's Saloum Delta National Park.

The decline in biodiversity is a problem that must be addressed in The Gambia. Until two decades ago, a large segment of the Gambian population relied on hunting for protein. However, heavy population pressure and loss of habitat have resulted in a considerable reduction in biodiversity, including the extinction of a number of major animal species that were indigenous to the country. As a result of the diminished numbers of animals, there is currently very little commercialization of wildlife meat and this impacts negatively on human nutrition. There has also been a decline in avian habitats, which are vital to the migration of numerous species. Implications of this loss in biodiversity for The Gambia's tourism potential are difficult to measure, but significant.

Increased development of protected areas is important in order to live up to the spirit of the Banjul Declaration, and to protect and conserve The Gambia's dwindling wildlife and the habitats that sustain it. From a practical standpoint, protected areas are also revenue earners, more so than most government sectors. The Gambia already has a developed tourism industry, so planners are not faced with the challenges (and risks) of building up a national tourism market. Even now, visitors travel to the reserves and parks shown on maps, only to find that these exist only on paper. Revenue opportunities are lost with each tourist season that protected area infrastructure remains undeveloped. However, tourism is only the practical means toward more valuable ends - the conservation of the flora, fauna and productive ecosystems of The Gambia. With this conservation come benefits that go far beyond the aesthetic enjoyment of foreign tourists. These include plant-derived medicines with as yet unknown pharmacological applications, numerous foods from both plants and animals, germplasm, watershed protection, including improved ground water recharge and soil retention, and unlimited construction materials, among others. Thus, in addition to conservation goals, protected areas are a means to attain sustainable development.

In both the short and long term, donor support for protected area infrastructural development, planning, and training should occur, as well as government support for institutional restructuring and funding for salaries and operations. A portion of GOTG Treasury funds should be allocated each year towards the overall institutional development of the DWC, and towards specific infrastructural support for the development of priority protected areas.

In addition to the assistance to the DWC provided through the recent staffing increase, the GOTG has also pledged generous support to the Kiang West National Park by committing a large portion of revenues from PL-480 rice sales to park and community

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development activities. Additional donor funds are being solicited to further support the management plans being developed through the Biodiversity Support Program.

Funds need to be allocated to develop park infrastructure to meet the goals of conservation and revenue. However, even if funds were allocated today, the DWC is currently institutionally incapable of fielding qualified staff to work in any improved protected area. Institutional and infrastructure development are inseparable. Even with increased staff levels, individuals need to have proper training to be most effective.

Regardless of how the protected areas system is developed, local communities should be involved as partners in conservation, and share the economic and ecological benefits of such development. Once a protected area is developed, a percentage of profits should be paid directly into a village development fund, so that villagers themselves can decide how to spend it, based on their priorities. The GGFP has a good model for village co-management, and this, along with efforts with the communities bordering KWNP, will provide a model. Local communities already benefit from protected areas, as they provide medicines, foods, fuelwood and construction material. A Management Plan that allows for sustainable continued use of the area is necessary in order to be acceptable to villagers.

VIII. Kiang West National Park - Border Community Development

A. Purpose and Definition

Kiang West National Park, with specific boundaries, is only the core area of what has been termed an Integrated Conservation-Development Project (ICDP). The overall objectives of the ICDP are to reverse the trend of natural resources degradation, not only in the Park, but also in the area surrounding the Park, and to ensure the conservation of biological diversity by combining the management of protected areas with activities to meet the social and economic needs of people living in communities around the Park.

The following specific objectives have been identified:

- Restore and conserve the natural habitats of indigenous plant and animal species of the Kiang West Region;
- Foster sustainable natural resources management and contribute to the well-being of people who live in the communities adjacent to the Park;
- Develop an integrated and holistic approach to serve as a model for the restoration and sustainable use of

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natural resources in The Gambia.

The KWNP covers an area of approximately 11,000 hectares on the south bank of the River Gambia. Declared a National Park in 1987, comparatively low population density and relative isolation have kept both the Park and surrounding communities guarded from the more severe levels of environmental degradation found elsewhere in The Gambia. The woodlands, rangelands, mangroves, bolongs and the River Gambia itself, support an abundant diversity of flora and fauna, particularly avifauna. In addition, these ecosystems provide local populations with a wide range of goods and services.

B. USAID Support

In 1990, at the request of the GOTG, USAID/Banjul enlisted the support of the Biodiversity Support Program (BSP) to assess the feasibility of developing the KWNP as part of a biodiversity conservation program for The Gambia. A team of 16 Gambian and international specialists in forestry, park management, sociology, ornithology, ecotourism, botany, zoology, natural resources economics, environmental education and fisheries conducted an assessment which concluded that the KWNP had the potential, assuming adequate cooperation and support from the GOTG and international donor agencies, to become a model for integrated conservation and development in The Gambia.

After this initial assessment, additional work was conducted, again by BSP with USAID support, to further develop the KWNP model, and to prepare for park and community development activities. A second document, entitled "The Kiang West National Park Management and Rural Development Plan" was drafted. This document went beyond the initial feasibility assessment and spelled out specific activities to be undertaken within KWNP and within the communities surrounding the Park. The next step in the process will be to present the proposed activities to interested donors, in order to determine the level of interest and financial support for the activities identified. This is tentatively scheduled for late May or early June 1992.

The Plan was developed as a multi-faceted project with a number of components, both within and outside the Park's boundaries. Those involved in the design work laid out two specific strategies crucial to the successful long term implementation of this project. These are:

- Recognition that park design, and the implementation of activities based on the design, reflect a number of components that can be implemented independently of the others, but with due consideration of where they will fit into the larger design context when, and if, the Park evolves into the ideal final product envisaged; and

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- These components should be approached at a pace dictated by the carrying capacity of the land, their acceptability to the target community populations, and the revenue earning capacity of any and all components.

C. Community Involvement

There are five communities surrounding the Kiang West National Park. These are Jali, Kuli Kunda, Bajana, Dumbutu and Batelling. The main activities in the communities revolve around subsistence natural resource management, including food crop production, groundnut production for export, fishing, and the collection of natural commodities for local use. There has recently been an increase in commercial fuelwood exploitation as well, to meet a growing demand from The Gambia's urban centers. In January 1992, as part of the ICDP planning exercise, the five communities in the Kiang West area closest to the Park selected two representatives, in addition to village chiefs, to discuss with BSP team members critical issues in their communities.

Through this process, as well through regular contact and interaction with local residents during each BSP activity, the ICDP Planners identified the following objectives as of immediate concern in the border communities:

- Implement environmental education initiatives in schools and communities to enhance awareness and understanding of natural resource management issues and solutions;

- Allow continued access by local communities to resources within the Park that are integral to daily subsistence, excluding all commercial activities other than fishing;

- Provide permanent and seasonal employment opportunities to a limited number of residents of bordering villages, including substantive employment, such as trained park guides (local naturalists);

- Ensure the continued effective participation of local communities in the planning and management of the KWNP; and

- Begin initiatives to provide access to, and assure adoption of, practical sustainable agricultural and natural resources practices.

IX. Interventions of USAID/Banjul

A. Context

USAID's Natural Resources Management Action Program for The Gambia (1990) saw KWNP as "a pilot activity to demonstrate sustainable approaches to enhancing biological diversity". This is in concert with the USAID Africa Bureau's Plan for Natural Resources Management, which emphasizes that productivity and well-being of people is directly linked to wise and sustainable use of the natural resource base.

As evidenced by the financial support provided during the initial assessment and planning phases for KWNP, USAID/Banjul is committed to the development of the Kiang West area. This support will continue during the implementation of the Agriculture and Natural Resources Support Project, specifically as regards assistance to the communities bordering the core Park area. This assistance directly links to the purpose of the ANR Program, which is "sustainable increases in the value of production on land under improved resource management practices".

This support is also consistent with the overall design of the Kiang West Project, which recognizes the possibility that Park and Community aspects of KWNP could be funded as separate components, depending on the interest of various donor organizations. Crucial to any such component funding is the recognition that neither the park component, nor the community component, can operate independently. Any multi-donor efforts will have to forge a cooperative relationship that will successfully work together to attain the overall goals of the ICDP.

B. Actions

It is proposed that the ANR Support Project set aside up to US $400,000 for the support of activities in the communities around Kiang West National Park. This proposed sum will be allocated for granting an NGO qualified in park and buffer zone management, based on the submission of a well-planned proposal to undertake specific activities, in collaboration with Gambian institutional partners and community members.

1. Community Resource Management Agreements

A cornerstone of the ANR Program is the development of Community Resource Management Agreements (CRMAs). These agreements are foreseen to be the complement to participatory development activities undertaken in The Gambia by such organizations as the GGFP's Community Forest Management Project, Save the Children, the Soil and Water Management Unit, and others.

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The idea behind a CRMA is that local communities, in concert with partner NGOs and government technical departments, will develop, in a totally participatory manner over time, a long-term plan for the management of the natural resources base. As is the case with Community Forestry, it is foreseen that the plan will serve as the basis whereby communities are granted total use rights to lands (outside of KWNP) which are now largely managed by the government.

The selected NGO will serve as an organizer and catalyst to this process. As such, the NGO will familiarize itself with relevant activities, and develop, with government and community partners, the approach best suited for the communities in question. Developing a CRMA is not necessarily an easy or rapid task. The focus on participation will likely demand patience and time to assure that each community is fully involved in, and knowledgeable about, the decision-making process.

2. **Community Beneficiaries**

As one of the goals of the KWNP is to promote conservation through tourism, the NGO will work with communities to assure that tourism development is appropriate, and does not negatively affect the cultural or economic fabric that now exists. Examples exist in the neighboring Casamance region of Senegal, and site visits to these places are encouraged. This level of participation will assure that community residents do not simply become a service sector for park-bound tourists.

3. **Environmental Education**

The need for environmental education is a guiding principle of both the ANR and the KWNP Projects. Under ANR, two years of long term technical assistance will be committed to this activity. Although the scope of ANR assistance in environmental education is to serve a broader purpose than just the KWNP Project, there will be inevitable links and common resources to share and build upon. Both projects will work with Peace Corps Volunteers to further the environmental education agenda.

4. **Training**

The NGO which works in villages bordering KWNP is encouraged to investigate training opportunities for community residents or develop an in-country training program covering natural resources, community development, ecology, or other subject areas.

5. **Regional Implications**

The NGO implementor is encouraged to explore the regional implications of its work in the communities. As a nation, The

Gambia is susceptible to the influences of actions undertaken in neighboring countries. Examples of this are: upstream-downstream affects of erosion, pollution, and other activities; degraded ecosystems that force wildlife onto smaller and smaller land areas, with potential harm to subsistence field crops; and depletion of mangroves, effecting important habitats for fish breeding. To foster cooperation on these matters, the NGO is encouraged to work with the DWC, community members and other Departments, to explore opportunities for dialogue and collaboration to address some of the critical bio-regional management issues.

D. Strategy

The ICDP Planners have developed a strategy for the implementation of activities. This information should be closely analyzed, and adopted as appropriate, by the NGO implementor. At the same time, the NGO is encouraged to make adaptations based on increased information and experience gained from working with local residents.

The implementation strategy includes:

- Establishment of a village Technical Advisory Committee (TAC) to identify critical issues and needs of the communities. The members of this TAC have been chosen, and include two community members per village selected by the leaders of each village, the **alikalolu** from each village, and the District Chief from Manduar. This TAC will be the natural go-between for decision-making on activities supported in the communities through ANR, but should not substitute for daily conversation and interaction with villagers, particularly women, as they are not represented on the TAC;

- Establishment of woodlots, orchards, and other agroforestry initiatives;

- Construction and maintenance of soil and water retention and/or diversion structures;

- Buffer zone enrichment plantings;

- Park fee revenue sharing with local communities to establish a fund for local development activities; and

- Other activities, including fisheries, rangeland management, handicrafts training, and social forestry. These activities should be studied by the NGO implementor and discussed critically with park planners and community residents.

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X. Additional Contributions of the ANR Program

As designed, the ANR project will assist the DWC through direct and indirect means. The direct assistance is evidenced in proposed activities in the communities surrounding KWNP. Indirect assistance takes the form of a conditionality that will permit the Department to retain a portion of the revenues gained through gate receipts from the Park and Protected Areas System, and other sources, in an account earmarked for development and operational expenses. This is an important step to allow the department to more successfully attain its important mandates of wildlife and habitat (biodiversity and ecosystems) conservation.

The conditionality proposed is a step toward a longer process of a full staffed and professionally trained DWC, and a functional, established and maintained Park and Protected Areas System. While taking into account long term changes based on policy reform, donors should not lose track of the need for short-term and well placed technical assistance and training in the face of extreme and rapid ecological decline.

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ANNEX P: PARTICIPANT TRAINING

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A. Staffing Constraints at MNRE

At present, there is a critical shortage of trained professional and technical staff personnel at all levels of the MNRE, particularly in the Forestry Department, Environment Unit and Planning Unit. Approximately 90 percent of the personnel of MNRE do not have university degrees. As a result MNRE has few highly qualified supervisory, management and technical staff. Few of the mid- and field-level technicians have received technical training. The staff limits in the MNRE Forestry Department are particularly serious. Between 1950 and 1976, the Forestry Department staff consisted of only two individuals trained as technicians. Between 1976 and 1990, the staff grew to 200, but then dropped in 1990 to 147 employees in all categories as a result of a major reduction in force of the GOTG. Among the remaining Forestry Sta
ff, there are only four professionals (two with MS degrees and two with BS degrees). Three staff members are currently receiving BS degree training in the U.S., the United Kingdom, and Germany.

In 1990, virtually all vacancies were eliminated from the nominal rolls throughout the GOTG. Currently, only recently created positions remain to be filled. Within the MNRE, there are a number of newly created positions waiting to be filled (e.g. in the Planning Unit and Department of Wildlife Conservation).

The MOA's Department of Livestock is also thinly staffed, particularly in the area of range management. The Soil and Water Management Unit, on the other hand, has a large and well-trained staff complement.

The Ministries also suffer from the problem of retaining qualified personnel, primarily because the salary scales for civil servants are low compared to those offered by the private sector and development agencies in the region.

B. USAID/Banjul's Past Training Efforts in The Gambia

The contribution of USAID/Banjul to strengthening the human resource base in The Gambia has been significant, particularly in agriculture and related natural resource management disciplines (see Table P-1). This training has taken place under the Human Resources Development for Africa (HRDA), and Sahel Manpower Development Program I & II training programs, as well as through training supported by projects, including through the Gambia Forestry Project (1979-86), the Gambia Agricultural Research and Diversification (GARD) Project (1985-1992), and the Soil and Water Management (SWM) Project (1978-1991).

Table P-1: USAID's Training Efforts (as of March 1992)

		PRIVATE SECTOR No.	PRIVATE SECTOR Pct	PUBLIC SECTOR No.	PUBLIC SECTOR Pct.	TOTAL	PERCENT OF TOTAL
Active	-	4	11%	33	89%	37	
Planned	-	3	60%	2	40%	5	
Completed	-	87	32%	187	68%	274	
Terminated	-	0		6	100%	6	
Men	-	82	30%	195	70%	277	86%
Women	-	12	27%	33	73%	45	14%
US Training	-	84	31%	185	69%	269	83%
Third Country	-	10	20%	41	80%	51	16%
Unknown	-	0		2	100%	2	1%
PhD	-	0		0		0	
Professional	-	1	100%	0		1	
Masters	-	7	37%	12	63%	19	
Bachelors	-	3	6%	50	94%	53	
Undergraduate	-	1	4%	22	96%	23	
Sub-Total Acad.		**12**	**13%**	**84**	**88%**	**96**	
Technical	-	82	36%	144	64%	226	
Agriculture	-	8	8%	89	92%	97	30%
Arts & Sci	-	24	27%	66	73%	90	28%
Bus. & Mngt.	-	53	54%	45	46%	98	30%
Education	-	1	33%	2	67%	3	1%
Energy	-	1	100%	0		1	
Environment	-	0	100%	8	100%	8	2%
Forestry	-	0		6	100%	6	2%
General Other	-	2	100%	0		2	1%
Health	-	0		2	100%	2	1%
Population	-	5	33%	10	67%	15	5%
CTRY. TOTAL :		**94**	**29%**	**228**	**71%**	**322**	**100%**

Source: USAID/Gambia - HRDO, PTMS, April 1992

C. Other Donor Activities

Other donors, particularly the German technical assistance organization (GTZ) and the United Nations Sudano-Sahelian Office (UNSO), are providing training in key areas, including agroforestry, social forestry, and economics. Over the next 10 years, the GTZ hopes to provide long-term, short-term, in-country and in-service training to MNRE staff, particularly the Forestry Department. This includes 2 MS and 5 BS degrees. The Gambia-German Forestry Project also carries out training at the community level.

UNSO has appointed a full-time advisor in natural resources management to work with the MNRE's Environment Unit. It is anticipated that this project will provide graduate degree training for one member of the Environment Unit's staff and two employees of the Planning Unit.

D. Training And Staff Development Needs

Specific training needs vary with MNRE and MOA departments and units (environment, wildlife, livestock, forestry, etc.) and job levels (upper, mid- and lower-levels). However, the most critical needs are the following:

- Long-term and short-term training to reinforce and improve technical skills and expand analytical and problem-solving skills;
- The development of specialties in areas in which there are currently insufficient numbers of trained nationals or in areas which are new or projected as critical in coming years;
- Mid- and upper-level management training; and
- Training of trainers in NRM technologies and practices (with the trainers subsequently passing their knowledge onto members of local communities).

Meeting the above needs would require long-term, short-term, and in-service training. While meeting all of the training needs of the Ministry is beyond its scope, the ANR Program will include a significant investment in training.

E. Proposed Training Program

1. Long-term Academic Training in the U.S.

The ANR Program will fund degrees training in the U.S..

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Tentatively, these will be four BS degrees: two degrees in forestry; one in range management; and one in socioeconomics. This training will be carried out at universities in the U.S. Every effort will be made to select training participants and enroll them immediately upon project implementation. The rationale for this BS training is that the continued adoption and spread of the resource-conserving technologies being promoted by the ANR Program will depend upon increased capacity within the line ministries (particularly the Departments of Forestry and Livestock). The cost of the BS training is calculated at $30,000 per year (or $120,000 per degree). The total cost would therefore be $480,000.

The institutional contractor will work with the MNRE to identify candidates for long-term training. However, the training itself will be handled by the USAID/Banjul PSC Training Officer. While specific candidates have not, as yet, been identified, they will likely come directly from existing or newly recruited GOTG staff (particularly the Departments of Forestry, Wildlife Conservation, and Livestock). For the most part, these individuals will return to regional offices, thereby increasing the field expertise of these departments.

2. Third Country Academic Training

The ANR Program will provide support for up to three MNRE staff to attain a two-year certificates in wildlife management at the Mweka College for African Wildlife Management in Tanzania or a similar African institution. The estimated cost of the training program at Mweka is $25,000 for each candidate. Similarly, six Department of Forestry staff will receive certificate training in agroforestry and related fields. One possible site for this training would be Ghana. In addition, it is proposed that one MNRE staff member attend a diploma program on natural resource inventories. The USAID/Banjul Training Officer will manage this training, once the specific needs have been identified and candidates selected.

3. Short-term U.S. Training

Up to 20 person months of short-term training will be given in the U.S. for MNRE and MOA staff. This training will cover a variety of fields, including agroforestry, soil and water conservation, range management, environmental information systems, aerial photography interpretation, and basic management training. The institutional contractor will work with the MNRE to identify candidates for short-term U.S. training (and possible sources of training). However, the placement and management of the training will be handled by the USAID/Banjul PSC Training Officer.

Two MNRE staff members will be sent for certificate training

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in the U.S. in Environmental Information Systems. It is anticipated that this would be a 12 month course at a U.S. institution. The cost is estimated at $30,000 for each course.

4. **Short-term Third Country Training**

Up to 28 months of short-term third country training will be provided under the ANR Program. It will include training in environmental information systems and aerial photograph interpretation at CSE in Senegal. Since most third country training will involve mission-to-mission arrangements, this will be handled by the USAID/Banjul training officer.

5. **Regional Networking**

This could include study tours and site visits to neighboring countries where resource-conserving technologies have been successfully introduced. This will be handled by the institutional contractor.

6. **In-country Training**

The ANR Program will provide substantial opportunities for in-country training. These will include periodic workshops and seminars aimed at bringing together representatives of GOTG agencies, NGOs, donor projects, and members of local communities. These workshops may be focused on technical subjects of mutual interest (e.g. specifics of selected resource conserving technologies), methodology (e.g. how to conduct participatory rural appraisals, or on the experience gained by various participants in implementing the ANR Program. Some of the training would be given by local experts (e.g. from the Soil and Water Management Unit or the Forestry Department), supported by outside consultants. There will also be a substantial focus on training-of-trainers (including extension personnel and those involved in environmental education).

The identification of training needs and participants, the organization of sessions, and the preparation of materials will be the responsibility of the institutional contractor (primarily the Grants Administrator).

Community-based training will lead to attitudinal and behavioral changes towards the fragile ecosystem and will allow villagers to autonomously devise plans and strategies best suited to their specific situation. Such training will also provide an opportunity for better communication, the cross-fertilization of ideas, and the development of rapport among the various groups.

7. **EIS Training**

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Short-term training will be provided in Environmental Information Systems (EIS) in the U.S., Third Countries and In-country. Annex N discusses the EIS component of the ANR Program in detail.

Table P-2: Summary Training Budget

U.S. Academic (Long Term)	**480,000**
4 BS Degrees 4 degrees at $120,000/degree	
- 1 BS in Socioeconomics	120,000
- 1 BS in Range Management	120,000
- 2 BS in Forestry	240,000
Third Country Academic (Long Term)	**260,000**
3 Diploma Programs in Wildlife Certificate	75,000
6 Diploma Programs in Agroforestry	150,000
1 Diploma Program in Resource Inventory	35,000
U.S. Technical (Short Term)	**252,000**
3 Certificate Programs in EIS	24,000
1 Certificate Program in Photo Interpretation	8,000
2 Diploma Programs in EIS	60,000
16 Certificate Programs in Agriculture and Natural Resource Management	160,000
Third Country Technical (Short Term)	**112,000**
9 Observational Study Tours in EIS	36,000
9 Observational Study Tours in Photo Interpretation	36,000
10 Certificate Programs	40,000
In-country Training	**500,000**
16 PBS Training Programs	60,000
16 EIS Photo Interpretation Programs	40,000
Other	400,000
Regional Networking	**200,000**
Total Training	**1,804,000**

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F. Participant Selection Procedures

All long-term training candidates will be nominated by the GOTG and come from those units with the MOA and MNRE that are directly involved in the project. The recruitment of candidates to fill newly created positions should provide (or free up) potential participants for the proposed training.

Short-term training will be provided to MOA and MNRE staff directly involved with the project, as well as to NGOs and local communities. It is also planned that GOTG staff that are only indirectly involved in the ANR Program (e.g. MOA extension agents and MLGL staff) would benefit from such training. The successful achievement of the training component of USAID/Banjul's ANR project and its future impact, to a large extent, will depend on the timely selection of qualified candidates and their reintegration into a more productive position upon their return. In order to ensure timely selection, the GOTG should start identification of training candidates as soon as the project agreement is signed.

There should be a Participant Selection Committee, composed of representatives of the MNRE, a representative of the institutional contractor, the AID Project Manager and the Mission's Training Officer. The GOTG will be required to submit the names of more than one candidate for each position. Candidates for BS training should: (1) hold Gambian citizenship; (2) work in, or be assigned to, the MNRE or MOA in a technical position; and (3) possess academic qualifications to at least the "Higher Diploma" level.

ANNEX Q: THE PAIP CONSTRAINTS ANALYSIS

ANNEX Q: The PAIP CONSTRAINTS ANALYSIS

A. The Global Problem: Degradation of the Natural Resource Base

The agriculture and natural resources sector is a very important component of the Gambian economy. It accounts for over 75 percent of the labor force, almost 35 percent of GDP, and nearly all of The Gambia's domestically-produced exports. The degradation of The Gambia's natural resource base which has occurred in recent decades is all the more alarming in light of the above. Total food production per agricultural laborer has remained static, even as the area cultivated has increased. Moreover, the environment upon which agriculture depends is rapidly degrading, thus putting at risk the long-term sustainability of agricultural production.

Two fundamental catalysts of this degradation have been: (1) The Gambia's high population growth rate and hence increasing demand for agricultural and natural resource products; and (2) the steady decline in rainfall that has been prevalent throughout Sahelian Africa in recent years.

The Gambia's population, which is growing at a rate of 3.4 percent per year, will double in approximately 21 years. The country's population density is currently 80.4 persons per km2, one of the highest levels in Africa. With high rates of rural-to-urban migration, the non-agricultural population now accounts for more than one out of every three Gambians. Demand for agricultural and natural resources products, and especially livestock products, grains, and forest products, is growing. The national herd size of cattle, sheep, and goats has grown steadily in recent decades. Increasing imports of food and forest products testify to the growing domestic demand.

Although the trend may reverse in the future, the length of the rainy season has been declining in The Gambia, with its onset shifting from mid-June to mid-July. Rainfall records for the Banjul area indicate that, for the period 1886 to 1968, 50 percent of the years were wet and 25 percent dry. During the period 1968 to 1990, in contrast, 5 percent of the years were wet and 75 percent were dry. It has been estimated that total annual rainfall in The Gambia has decreased 15 percent since the 1950s.

Traditional resource management practices in The Gambia have not been able to effectively adapt to these two long-term trends. In parts of the country, pressure on the land has grown. As a consequence, fallow periods on still arable sites have been shortened, in some places from over a decade to only one year. Between 1946 and 1968, area cropped with natural fallow dropped from 17.6 percent to only 5.5 percent of land area, while

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continuously cropped land increased from zero to 17.3 percent of national area. Evidence from the GOTG's annual agricultural survey suggests that this trend is continuing. In two important farming regions, Upper River and MacCarthy Island (South), virtually all the available farmland is being cultivated.

Decreasing fallow periods have led to loss of soil fertility and increased erosion. The extension of agricultural area competes with the growth of the livestock herd. The consequent degradation of rangeland is evidenced by the disappearance of perennial pasture species, particularly around easily accessible water sources, and their replacement with less valuable annuals. This is exacerbated by the uncontrolled burning of rangelands by farmers and herders, which reduces long-term forage availability and undermines forest regeneration. The encroachment of agriculture into traditional grazing areas has created serious conflicts between crop farmers and herders, as feed availability, particularly in the dry season, has decreased.

The ever-increasing demand for fuelwood and forestry products has led to a decline in the forest cover, and significant biodiversity loss. Although 43 percent of The Gambia is still classified as forested, approximately 70 percent of this is tree and shrub savanna, which has less than 10 percent tree cover. Closed forest and woodland savanna declined from 60.1 percent of land area in 1946 to 8.0 percent in 1968. A recent study by the GTZ suggests that these patterns have continued. The current rate of fuelwood consumption is higher than the regeneration rate of natural forest remaining in the country. Timber imports from the sub-region, and especially Guinea, already account for 90 percent of The Gambia's lumber needs.

The decline in biodiversity is also a problem that must be addressed. Until two decades ago, a large segment of the Gambian population relied on hunting for protein. However, the heavy population pressure and loss of habitat has resulted in a considerable reduction in biodiversity, including the extinction of a number of major animal species that had been indigenous to the country. As a result of the diminished numbers of animals, there is currently very little commercialization of wildlife meat and this has impacted negatively on human nutrition. There has also been a decline in avian habitats. Implications of this loss in biodiversity for The Gambia's tourism potential are difficult to measure but believed to be significant.

The Sahelian drought has had a clearly negative impact on land use by reducing fresh water recharge within The Gambia and the watershed. The consequence has been salt water intrusion into the estuary and aquifer, which has rendered once productive rice lands sterile and destroyed important wetland habitats.

B. Overview of the Constraints Analysis

There is clearly little that USAID can do to address the problem of declining precipitation. Technologies have been identified, however, which allow for improvements in value of production of natural resource products even in the face of declining precipitation. Gambian farmers have demonstrated their capacity to adopt such technologies by their wholesale adoption of short-duration, early millet varieties.

Similarly, for all intents and purposes, the size of Gambia's population and its growth rate must be taken as a given, at least in the near and medium term. Although population and increased demand exacerbate the pressure on natural resources, studies have shown that Gambia possesses the production potential in its range, forest, and land resources to meet a significant portion of the growing demand.

Given these global parameters, it becomes imperative that The Gambia manage its resources as efficiently as possible. There are a number of sector constraints which impede efforts to improve the efficiency of resource use. These are discussed below. Addressing some of these constraints is within USAID's manageable interest. This annex also discusses a number of constraints that USAID has determined are outside of the Mission's manageable interest.

1. Analytical Base

This constraints analysis is based on USAID's experience in the agriculture and natural resources sector and its discussions with the GOTG, NGOs and other donors. USAID has also had the benefit of a wide range of studies and independent analysis on the subject. These have included:

- The Gambia Environmental Action Plan (GEAP), which is based in part on a United Nations Consultative Technical Workshop held in early 1991;
- The USAID-funded Gambia National Natural Resources Policy Paper (1990);
- The Gambia Natural Resources Management Action Program (Karch et. al., 1989);
- The Livestock Sector Review (GOTG, 1991);
- The Gambia Agriculture and Natural Resources Sector Assessments (Fuglie et. al., 1991);
- The Gambia Agricultural Research and Diversification Study (Conje et. al., 1989);

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- Final evaluations of the USAID-funded Mixed Farming and Natural Resource Management Project and the Gambia Forestry Project;

- Women and Their Role in the Agriculture and Natural Resources Sector in The Gambia (Norton-Staal, 1991);

- Tenure Constraints and Opportunities in Natural Resources Management in The Gambia (Bruce et. al., 1991); and

- Economic Reform and Poverty in The Gambia: A Survey of Pre- and Post-ERP Experience (Jabara, 1990).

USAID/Banjul has also made use of sector assessments carried out by other donors, such as the World Bank and the FAO. These include an FAO/World Bank sector study undertaken in preparation for the proposed follow on to the World Bank's Second Agricultural Development Project (which will support continued agricultural research), an in-depth analysis of the forestry sub-sector carried out by the German technical assistance corganization and the internal review by the GOTG Management Development Institute of the Livestock Marketing Board.

2. Summary of Constraints to the Agriculture and Natural Resources Sector

The constraints discussed below are divided into those which are within the "manageable interest" of the Mission, and therefore will be addressed by the ANR Program, and those which are not.

Constraints to be addressed by ANR Program

1. Public sector policies that hinder sustainable natural resources management;

2. Inadequate information base for natural resource policy formulation;

3. Limited capacity to extend available technologies to the rural population; and

4. Failure of the government to most effectively employ its limited resources.

Constraints that are not within Mission's "Manageable Interest"

5. Inefficiencies in input delivery and output marketing

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systems due to:

- o Displacement of the private sector in input delivery and marketing by subsidized public sector efforts; and
- o A poorly developed transportation system.

6. Human capital constraints in rural areas, including:

- o Low levels of rural education; and
- o Peak period labor shortages in rural areas.

Each of these constraints are now discussed in turn.

C. Public Sector Policies that Hinder Sustainable Natural Resources Management

USAID concluded from its review that institutional, legal, and financial constraints effectively discourage local communities from using their resources in a rational and sustainable manner (e.g. to avoid overgrazing, excessive burning, deforestation, and the destruction of biodiversity in natural areas).

The problems caused by the lack of local community control over natural resources are manifest. The Central Government is the owner of pasture and forest lands and products derived therefrom. Analysis during the preparation of the Gambia Environmental Action Plan (GEAP) has emphasized the importance of decentralizing authority and empowering local communities to properly manage their resources. This reflects a broader recognition in the CILSS countries that renewable natural resources can only be sustainably managed by local communities empowered through legislation, technical expertise, and improved information.

A specific example of constraints can be found in the collection and distribution of revenues from the cutting of wood. Because of the common property aspect of natural resource markets, governments have typically had to intervene to rationalize pricing and ensure sustainability of these resources. Unfortunately, governments often do not do this effectively.

In the case of The Gambia, Licenses are issued for the commercial cutting of dead wood and grant individuals the right to cut any dead trees within a given district for a full year. Permits are issued for the cutting of live trees and authorize individuals to cut a specified number of a specified type of tree

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from a given district (the fee varies with the type of tree). Royalties must be paid in order to obtain a "removal permit" which is necessary to transport wood.

Non-commercial use of forest products is free. Rural families can collect dry fuelwood and wood for their household use free of charge.

While increased in mid-1991, the license fees, permit fees and royalties levied do not reflect the replacement cost of the resource. In recent years revenues from all three sources for the entire country have averaged less than 200,000 dalasis/year (approximately $25,000) Recently the government has substantially decreased the number of licenses issued, in an effort to curb the destruction of the forest resource.

The licenses are ostensibly non-transferable and permit only the license holder to cut the wood (theoretically limiting the amount of harvesting that takes place). However, these restrictions are routinely violated. Minimal enforcement of the forest pricing regulations takes place. Restrictions on cutting live wood are bypassed by killing the trees with fire or by ringing them, so that they can be subsequently cut. Fines for illegal cutting are so low that they do not constitute a deterrent.

While licenses are approved by the division-level Forest Committees, of which there are five in the country, this is not adequate to give local communities effective control over the harvesting of trees in their area. Once a permit is sold to the tree-cutter, villages have no right to refuse admission to their forest. This is exacerbated by the fact that the bulk of the revenues that are collected go to the central Treasury (with 30 percent accruing to the divisional government and 10 percent targeted to support the Divisional Forest Committees). Minimal amounts, if any, accrue to the local communities.

Consequently, local communities have little vested incentive to conserve or protect the forest resources. At the same time, none of the revenues retained at the central level go to the Department of Forestry, the government unit empowered to encourage sustainable forestry management practices. Thus, the central government has little direct incentive, and inadequate capacity, to police the forests.

The end result of this system has been to encourage the destruction of the forest resources and to discourage planting and protection. By providing wood products at prices that do not reflect their real value, the system favors certain wood cutters and transporters, as well as the consumers of wood products, at the expense of forest resources. The current GOTG-mandated fee structure does not account for replenishment costs and directly

undermines any efforts to institute sustainable community forestry.

A similar situation exists for range resources. Lack of any monetary charge for access to range or pasture land encourages individuals and the community to exceed the carrying capacity of the land. No individual has any incentive to defer grazing or reduce herd size, for example, because other producers will capture the benefits that result in terms of increased forage availability. The absence of revenues precludes investments by individuals and communities to protect or improve the range.

Their communal nature makes burning of pasture and woodlands difficult to control. While limited burning of the rural surface area has been an accepted cultural practice for generations, anecdotal evidence suggests that the area burned annually and the intensity of the burning have increased in recent decades. The instigators of bush fires include hunters, farmers who do not have the resources to plow thick vegetation, and herders who wish to eliminate tsetse flies or to generate the green offshoots which grow after burning. These fires often cannot be controlled, and they spread and destroy valuable surrounding forest area. Since local communities have little vested interest in forest areas, they have little incentive to control fires.

While this system may yield short-term benefits, in the long run it is devastating for forest and range resources. Continuous and persistent bush fires not only destroy annual and perennial grasses, but also destroy the very soil humus upon which the regeneration of grasses depends. Extensive burning, particularly late in the season, greatly reduces the biomass needed to maintain soil fertility and reduce soil erosion. It also contributes to the destruction of the forest cover. Experiments have shown that control of burning allows a significant increase in range carrying capacity during the dry season.

Constraints posed by the legal and administrative structures governing the land tenure system constitute another important obstacle to long-term increases in production from agriculture and natural resources. Current formal and customary land tenure laws have not had time to adjust to the growing scarcity of land.

Currently, customary tenure appears to provide reasonable security of tenure on-farm, at least for customary owners and for members of lineages which have borrowed land for very long periods. Land borrowers, however, are finding their tenure rights and hence incentives for investment increasingly limited. Borrowing periods are becoming shorter, as the owners increasingly fear that the borrowers will begin to make claims on the lands. Tenure for tree planting, necessary both for increased fruit production and agro-forestry techniques, is especially insecure. Also, with the dramatic growth in vegetable

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gardens, farmed almost entirely by women, a host of new and pressing tenure issues has arisen. The tenure problems surrounding women's gardens has been highlighted by the Women's Bureau, the Land Reform Commission, and selected NGO's that have worked extensively with gardens in recent decades.

The impact of tenure is especially pronounced in the area of grazing and forest resources, both of which are communally managed in The Gambia. Current formal and customary land tenure laws limit rural communities' incentives for sustainable management of farm, grazing and forest resources in their vicinity. Both forest and grazing resources have been treated as open access resources under customary law, and those rules have not yet adjusted to reflect their growing scarcity.
For the over-exploitation of forest and pasture resources to be reduced, communities must be legally empowered to manage the resources.

Although the existing land tenure system presents certain constraints, research indicates that large-scale land reforms, should be discouraged. The experience in sub-saharan Africa with this approach has been very poor. Tenure reforms that provide for individual ownership or the establishment of long-term leases are costly and often degenerate into "land grabs" by the more affluent urban class. A study by the Land Tenure Center of the University of Wisconsin concluded that the current system is flexible enough to evolve in response to changing socio-economic needs. However, certain reforms may be needed to address discrimination against women.

USAID believes that this set of constraints is within the "manageable interest" of USAID to address. Selected policy reforms covering local community-based forest management and licensing fees can be initiated in the medium term. Other areas will require further analysis before concrete recommendations are proposed. The land tenure question is sufficiently complex that much additional work will need to be done before any meaningful policy recommendations can be put forward. The ANR Program will, therefore, limit its land tenure activities to support for on-going policy-based research.

D. Inadequate Information Base for Natural Resource Policy Formulation

The ecological and socio-cultural systems in The Gambia are very complex and their dynamics are not adequately understood. The traditional land use system developed hundreds of years ago, at a time when forest and pasture lands were abundant. Most rural Gambians probably are not even aware of the extent to which they are destroying the resource base upon which their long-term welfare depends. At the same time, there is very limited

capability at either the national or the local level to analyze and monitor the status of the natural resource base and resource use.

As a result of this lack of information, the seriousness and scope of environmental degradation are not fully appreciated by the government and donors. This is exacerbated by the fact that many of these systems are in transition. This lack of knowledge can cause decision makers to underestimate the long-term implications of their actions (e.g., degradation of resources), or to opt for short-term gains, even though the long-term negative implications are serious. For example, the deleterious long-term effects of uncontrolled burning of rangelands is not well understood by rural Gambians, while cost-effective mitigation options have not been developed by the GOTG or donors.

The complexity and heterogeneity of tenure relationships are another example. The 1990 Lands Act appears to have been developed, without sufficient prior analysis, as a "top-down" effort to rationalize tenure by privatizing land. Some tenure experts have expressed concern that this approach will lead to serious abuse and, ultimately, be detrimental to the rural population.

The process initiated with the preparation of the Gambia Environmental Action Plan (GEAP) will be instrumental in increasing understanding of natural resources use in The Gambia. The GEAP has underlined the need for more knowledge on the dynamics of the natural resources base, as well as for an increased analytical capacity to understand the forces at play so that policies developed are more realistic and effective.

The NPA component of the proposed ANR Program has focused conditionalities on the completion, approval and implementation of the GEAP. The ANR Support Project will direct technical assistance and training resources to the MNRE, which is charged with implementing the GEAP. As part of this effort, the ANR Program will help the MNRE examine natural resource issues, formulate natural resource policy, and support the establishment of a natural resources data base.

E. Limited Capacity to Extend Available Technologies to the Rural Population

Based on the results of research carried out in The Gambia and in neighboring countries, there are a number of technically and economically sound technologies and practices that are available immediately and can be incorporated into resource conservation efforts supported by the proposed ANR Program. Annex I presents a thumbnail sketch of some of these technologies. The availability of these technologies is due, in

part, to efforts by USAID and other donors over the years to support the agricultural research capacity of the GOTG. Of particular note, in this regard, are USAID's Mixed Farming, GARD, and Soil and Water Management Projects. Technologies designed to improve natural resources productivity have also been developed by NGOs, as well as through the research activities of the Department of Forestry and the Soil and Water Management Unit.

Because of these combined efforts, the lack of available technologies does not appear to be a major constraint to increasing productivity. Efforts at disseminating the technologies developed, on the other hand, have been less than fully effective in The Gambia, despite multi-donor assistance in this area. As a result, inadequate dissemination of technologies remains a significant constraint to improved productivity.

The main reason for the limited effectiveness of the government's extension effort in agriculture and natural resources is the GOTG's inability to effectively support its staff with transportation, equipment, fuel, and other inputs.

While staffing problems have plagued the extension efforts of the GOTG, they cannot be said to result from lack of assistance. Assistance to the Department of Agricultural Services has come from Italian, German, French, and Danish governments, IFAD, EC, the World Bank, and UN agencies. Constraints to the extension of technologies will be addressed through the follow-on to the World Bank's second Agricultural Development Project, currently under negotiation.

The GOTG has limited capacity in The Gambia for dissemination of agricultural and natural resources technologies. NGOs, on the other hand, have shown that they have strong links to village organizations and can effectively disseminate technologies to the rural sector. Examples are manifold, but the cases of the promotion of sesame production,

improved rice in the North Bank, and field testing of technologies from the GOTG's Department of Agricultural Research are notable.

Given constraints on public sector resources and effectiveness, USAID will address the "dissemination of technology" constraint by relying primarily on the NGO community for extension and by supporting the development of linkages between the government extension service and NGOs.

This approach will complement the efforts of other donors to strengthen individual GOTG institutions. For example, the World Bank will provide direct support to the Departments of Agricultural Services and Agricultural Research under the planned Agricultural Support Services and Natural Resources Management Project (currently under negotiation). Similarly, the GTZ Gambia-German Forestry Project is providing important assistance to the Forestry Department and the UNDP is supporting the Livestock Department in the MOA. In addition, the ANR program will promote the dissemination of natural resources technologies through support for the environmental education program of the Environment Unit of the MNRE.

F. Failure of the Government to Most Effectively Employ Its Limited Resources

The GOTG's expenditures in agriculture accounted for only 7 percent of the recurrent budget and 17 percent of the development budget in 1990. These expenditures were virtually all for personnel. Much of the investment in The Gambia's agriculture is coming from donors, which finance most of the MOA's non-personnel recurrent cost and investment budgets.

Those resources that are invested in the sector by the GOTG are not always managed adequately. Realistic budgets are not developed and expenditures often do not correspond to program budgets. Explicit performance indicators are not monitored in the recurrent budget. The GOTG budget is a line item budget coordinated by the Ministry of Finance and Economic Affairs (MFEA). Funds are allocated to administrative structures (e.g. the Department of Planning) and not to function or program. The Ministry of Finance exercises discretionary authority to withhold and/or reallocate funds during the year, irrespective of any budgetary planning that was done.

As a result, there has been little incentive for program budgeting or for cost-effective investment. This has resulted in sub-optimal employment of those limited financial, human, and material resources that are available. Critical programming constraints go unaddressed, sometimes undermining the effectiveness of entire programs. The heavy dependence on donors

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means that the availability of donor resources dictates areas of concentration and that the varied and idiosyncratic agendas of the individual donors set ministry priorities.

A system to enable the MOA to accurately monitor its budgetary requirements and expenditures was developed by the GOTG, with USAID-financed technical assistance under the GARD project. This system, the Program Budgeting System (PBS), links the MOA budget to program, project and activity indicators. It also identifies budgetary requirements and expenditures for each MOA activity, project and program. Recently, the World Bank initiated a Public Expenditure Program (PEP) exercise with four priority ministries - Health, Education, Agriculture and Works. The PEP, like the PBS, will assist ministries to link priorities with budgetary resources.

These ministries will have technical assistance from the World Bank to help the MFEA initiate and execute the PEP. The PEP, like the PBS is designed to assist the ministries in developing priorities and supporting those priorities with the budget. The two systems complement one another. Whereas the PEP has a program focus (i.e., how much is spent on administration, a program, or a common theme), the PBS focuses on interventions below the program level (i.e., individual activities and projects within departments). Implementation of the two systems will, clearly, require close collaboration.

The ANR Program will include conditionalities requiring that the GOTG fulfill the terms of the PEP requirements of the World Bank. By extending these conditions to the MNRE along with the MOA, the ANR program will assist the GOTG to more efficiently direct its limited material and human resources toward greater program impact. Under the ANR Support Project, technical assistance will continue to refine the PBS system in the MOA, and to expand it to the MNRE. Another set of conditionalities will require the timely allocation of resources to the MOA and MNRE based on a comprehensive budgeting exercise.

G. Inefficiencies in the Input Delivery and Output Marketing Systems

The use of fertilizer, pesticides, credit, and other inputs in The Gambia is very limited. A major reason for this is the inadequacy of input delivery systems. At the same time, marketing channels remain weak, particularly for innovative cash crops such as sesame. The underlying reasons for the poor input delivery and output marketing systems are: (1) historically excessive involvement of the public sector in input delivery and output marketing; and (2) inadequate investment of the public sector in rural infrastructure, particularly roads.

Displacement of the private sector in input delivery and marketing by subsidized public sector efforts

After independence, the GOTG gradually assumed many of the responsibilities and functions that the private sector had in the past. The marketing of groundnuts, for example, was gradually shifted from the private sector to a public monopoly, as government-subsidized entities, the Gambian Cooperative Union (GCU) and Gambian Produce Marketing Board (GPMB) took the place of private traders. The GPMB distributed inputs to farmers at highly subsidized prices, thus undermining the private sector input distribution network. The GOTG created an Agricultural Development Bank to channel subsidized agricultural credit to farmers, a Livestock Marketing Board to control the marketing of livestock and livestock products, and a Fish Marketing Corporation to market fish and fish products. The Gambia River Transport Company subsidized river transportation, driving private transporters out of business before finally going bankrupt itself. The GOTG and its parastatals invested directly in a wide variety of activities, including a sawmill, cold storage facilities, hotel property, a seed mill and a hatchery.

Beginning in 1986, the government embarked upon a privatization effort which is slowly reversing this trend. The results of these reforms, which are discussed in Annex F, are significant. There has been a major divestiture of state-owned and controlled assets; groundnut and rice marketing has been liberalized; and fertilizer and other subsidies virtually eliminated. This process, however, has been difficult and the re-establishment of the private sector has been slow. Private investment in fertilizer distribution has taken six years and considerable effort to achieve. While the GOTG has been verbally committed to the privatization objectives articulated in its economic reform, the perceived potential of the GOTG to re-enter this market effectively discourages private investment.

In its review of constraints, USAID/Banjul has concluded that, for the most part, the liberalization steps being undertaken by the GOTG will ultimately reduce the real barriers to private sector involvement in input and output marketing in the agriculture sector. The USAID-financed Financial and Private Enterprise Development (FAPE) program, which calls for the full privatization of the Gambia Produce Marketing Board and other parastatals, will further this effort.

There are two areas of continuing concern, however. These are: (1) the continuing involvement of the Livestock Marketing Board in the livestock marketing sector; and (2) weaknesses in the credit system. The first concern will be addressed by the ANR Program, the latter will not.

Livestock Marketing [1]

The ANR PAAD contains conditionality linked to the repeal of the Livestock Marketing Act. This implies the elimination of the cattle import/export monopoly held by the Livestock Marketing Board (LMB), as the LMB will be abolished. It is hoped that repeal of the Act will lead to the privatization of the Abuko abbatoir, which is currently owned and operated by the LMB.

The LMB has an import/export monopoly on cattle. It does not effectively exercise its monopoly rights, however, and there are no prospects that the LMB will resume exporting. Nevertheless, the potential to export breeding stock remains high and the current situation prevents a private firm from doing so. While evidence does not support the view that the LMB is currently a serious constraint to the internal cattle market (primarily due to its relatively small market share and overall inefficiency), it has the potential to become one.

Lack of Functioning Credit System.

Until recently, the major supplier of formal farm credit was the Gambian Cooperative Union (GCU). Even GCU has found it extremely difficult to raise funds for on-lending to farmers. Part of the problem is that the GCU and similar credit institutions must service a large number of small farmers, whose credit requirements are relatively small, generally less than $100. This leads to high transaction costs, which GCU has been reluctant to pass on to farmers. The rate of interest that would be required to fully cover these costs is believed to be on the order of 40 to 60 percent, but farmers were not charged this high a rate. Finally, most lenders in The Gambia require collateral. Given their lack of property rights, Gambian farmers, especially women, have been unable to pledge collateral for loans. This, in turn, leads to the inability of most Gambian farmers to borrow funds to purchase farm inputs and implements.

Credit for the purchase of agricultural inputs and farm implements is limited. Available credit is expensive, frequently at a nominal rate of over 100 percent interest per year (althought the effective rate is apparently much less). Several NGOs provide low cost credit. The availability of such credit is extremely limited relative to the size of the market. Except for financing trade in groundnuts or the support of large commercial farms in horticulture, commercial banks furnish almost no funds to the agriculture sector. Given the high cost of

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[1] This discussion is a modification of that originally presented in the PAIP, based on the analysis concluded in the PAAD.

commercial bank credit (in excess of 25 percent), a considerable number of large farms do not find it economical to borrow funds for agricultural inputs.

GOTG experience with the now bankrupt Agricultural Development Bank has demonstrated the administrative and political obstacles that can derail large-scale formal credit efforts. Recently, attention has been given to small-scale and low technology efforts towards addressing the credit constraint. The lead of one NGO in appropriate technology credit schemes has been followed by the Central Bank's newly created Credit Project, which aims to replicate such efforts more broadly throughout the country. The credit constraint is being addressed collectively by the GOTG through the efforts of the Central Bank, the Ministry of Finance and the Ministry of Agriculture. USAID's Financial Sector Restructuring Project has complemented this effort through the provision of short-term technical assistance in the area of rural credit.

I. Poorly Developed Transportation System

Marketing of agricultural and natural resources produce is constrained by the low level of development of the transportation system. The entire north bank of the Gambia River has virtually no paved roads, while roads spanning half of the south bank are regularly in a state of disrepair. Improvement of the rural road network in The Gambia is not within the manageable interest, given the size of the Mission and the resources available. Other donors will, however, be working to alleviate this constraint. The Brikama-Soma road, spanning almost half of the country on the south bank, is expected to be repaved in the medium term, while pavement of the Barra-Farafenni road on the north bank is currently being funded by the African Development Bank. The EC is also considering the construction of feeder roads on the north bank.

The Gambia has not effectively used the potential of the Gambia River as a transportation network. Again this has been partly due to the displacement of the private sector activities by the public sector. The elimination of the publicly owned and subsidized Gambia River Transport Company (through bankruptcy) should provide an opening for private sector river transportation.

H. Human Capital Constraints in Rural Areas

While the availability of land will undoubtedly become a constraint in the future, it is not crucial. Rather, human capital is the constraint. Of particular importance are the low levels of rural education, and labor shortages during peak periods in rural areas.

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Low Levels of Education in Rural Areas

Lack of a trained human resource base is one of the most critical problems facing Gambian development efforts today. The Gambia has a primary school enrollment ratio of 57 percent. Although this is relatively high for Sahelian countries, it is far below the 77 percent average for Sub-Saharan Africa as a whole. The ratio does not accurately reflect the sharp disparities in access by both gender and region. For example, the Upper River Division (URD) has an enrollment ratio of 23 percent, compared to 86 percent in the more urbanized Western Division. While girls have an overall national enrollment of 46 percent, this figure drops to 14 percent in URD. The estimated literacy rate for females in the country as a whole is 3 percent.

This low level of literacy increases the costs of disseminating improved technologies, especially complex technologies such as those that are required for sustainable agriculture and the conservation of the natural resource base. Low literacy and numeracy are of particular importance in development efforts that try to involve the productivity of rural women. The major limitation on the ability of rural women to become leaders in village level development is their lack of training and education. Women's attitudes towards their own capabilities and position in society is also recognized as a problem.

While a broad-based effort to improve rural education levels is beyond USAID's manageable interest, the proposed ANR Program must take this constraint into account during project implementation. Adequate training and technical assistance must be provided as an integral part of field-level activities, and project objectives must realistically take into account the educational level constraint. At the same time, basic education needs are outside of the manageable interest of USAID, and outside of the scope of the Mission's Overall Strategy. Basic education is, however, being addressed by other donors. The African Development Bank's Education Sector Project is aimed at improving the education system through capital investment in schools and development of appropriate curriculum. The Women in Development Project supports literacy and numeracy campaigns. At the same time, NGO's, including some that would be involved in this project, provide literacy and numeracy skills as part of their ongoing programs.

Peak Period Labor Shortages in the Rural Sector

As noted above, The Gambia's high population growth rate has been paralleled in recent decades by high rural-to-urban migration. As a consequence, labor shortages regularly occur in important regions of the country and at peak periods in the cropping season. The working-age labor force grew at less than 1

percent per year during the period from 1983 to 1990 for two of the major crop-producing regions of the country, North Bank and MacCarthy Island (North) Divisions. These aggregate trends are mirrored in a study of farmer constraints undertaken by the Department of Agricultural Research. Farmers declared that the labor constraint, especially at peak periods (land clearing, planting, and weeding) reduced the amount of land that they were able to cultivate. Research conducted by USAID's GARD Project also showed that labor scarcity during peak periods was a major constraint to increased agricultural production. Farmer efforts to adjust to the labor constraint (e.g. through mechanization or the use of herbicides to control weeds) is hampered by the high costs involved.

The labor constraint stems from high rates of rural-to-urban migration. At the time of the last census in 1984 approximately on third of the Gambian population lived in the Western Division and the Banjul area. Projections show that the Western Division and the Banjul area will claim nearly 50 percent at the next census . Whole pieces of the population pyramid, males from 17 to 35, are missing in many villages. This migration stems from the relatively greater opportunities for earnings, education, and health services outside of the rural areas. In order to slow the rural-to-urban migration, the problems of limited investment and employment opportunities in the rural sector must be addressed.

From some regions of the country, especially the Upper River and MacCarthy Island Divisions, the rate of rural-to-urban migration appears to be slowing, and labor is becoming more available. Even where the labor constraint at peak periods remains, the ANR Program will increase long-term investment opportunities by enhancing the natural resource base and, in this sense, will assist in creating employment opportunities in the rural areas. In addition, the Program will give special attention to technologies which do not require heavy labor inputs during peak periods of the farming season.

The labor constraint, because it is derived from a set of macro-economic conditions, is for practical purposes beyond the manageable interests of the Mission. Only insofar as the investment and labor opportunities can be increased in the rural sector will the labor constraint be alleviated.

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ANNEX R: IMPLEMENTATION TIMETABLE

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1992

July	Recruitment of TDY Program Manager using PD&S funds
July	**Cabinet approves the GEAP (Conditionality #1 for Tranche #1)**
August	Authorization of Project
August	Signature of Program and Support Project Agreements
September	PIO/T drafted for PSC Program Manager
September	PIO/T drafted for Institutional Contract
September	GOTG has met standard legal conditions precedent to first disbursement
October	Request for Proposals drafted for Institutional Contract and submitted to RCO for review
October	Recruitment of permanent PSC Project Manager
October	**Cabinet designates a body with authority to coordinate the implementation of the GEAP (Conditionality #2 for Tranche #1).**
October	**MOA and MNRE agree on a timetable for further implementation of the PBS (Conditionality #4 for Tranche #1).**
October	**Livestock Marketing Act is repealed (Conditionality #10 for Tranche #1).**
November	Request for Proposals for institutional contractor advertized
November	Preparation of Training Plan and identification of participant training candidates
December	Release of Tranche #1 ($2.0 million).

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January	**Tentatively begin 2 person month TDY to plan environmental education component**
January	**Tentatively begin 2 person-month TDY of information systems specialist**
February	**Proposal review process begins for institutional contractor**
April	Institutional contractor selected
June	Institutional contractor fields technical assistance team: Senior Policy Advisor (4.0 py); Grant Administrator (4.0 py); Program Budgeting System Advisor (2.5 py) Environmental Education (2.0 py) Resource Inventory Specialist (1.0 py)
July	**GOTG completes GEAP investment program, has reviewed it at sectoral donors' conference, and included initial projects in the FY 1993-94 PIP (Conditionality #3 for Tranche #2)**
July	**GOTG makes a committment to study: (i) present and projected forest and park revenue flows; (ii) options for the retention of a portion of revenues by the resource-generating sector (including line agencies, independent boards, and communities); (iii) personnel and operational expenditures needed by GOTG to implement the natural resources management component of the GEAP (Conditionality #7 for Tranche #2)**
July	Release of Tranche #2 ($2.0 million)
November	Study of costs and prices related to forest products and proposals for fee and royalty revisions (Interim Step for Conditionality #8)
November	Study of present and projected forest and park revenue flows (Interim step for Conditionality #8)
December	Comprehensive analysis of multi-year funding requirements of MOA and MNRE (Interim step for Conditionality #5)

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1994

July	**Based on a multi-year analysis, the FY 1994/95 recurrent budgets for specific MOA and MNRE programs have been developed (Conditionality #5 for tranche #3)**
July	**Forestry fees and royalties are revised to more accurately reflect true costs and the schedule has been gazetted (Conditionality #8 for tranche #3)**
July	**Written evidence that the GOTG has undertaken and reviewed the studies specified in Conditionality #7, developed an action plan, and begun implementation of the appropriate recommendations (Conditionality #9 for Tranche #3).**
July	Release of Tranche #3 ($1.0 million)

1995

June	Departure of Environmental Education Advisor
July	**Publication of Annual Financial Reports by MOA and MNRE analyzing FY 1994/95 expenditures. (Conditionality #6, for Tranche #4)**
July	Release of Tranche #4 ($2.0 million)
October	Mid-term Project Evaluation
December	Departure of Program Budgeting System Advisor

1996

July	**Revision of legislation concerning forestry, wildlife, livestock, lands and other natural resources in order to enable local communities to assume management responsibility for these resources (Conditionality #11 for Tranche #5)**
July	Release of Tranche #5 ($3.0 million)

1997

January	Final Project Evaluation
June	Departure of remaining members of institutional contractor field technical assistance team (Policy Advisor and Grant Administrator)
December	Project Activity Completion Date

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ANNEX S: INITIAL ENVIRONMENTAL EXAMINATION

ANNEX S

INITIAL ENVIRONMENTAL EXAMINATION

or

CATEGORICAL EXCLUSION

PROJECT COUNTRY: THE GAMBIA

PROJECT TITLE: AGRICULTURE AND NATURAL RESOURCES PROGRAM (635-0235) AND SUPPORT PROJECT (635-0236)

FUNDING: FY(s):1992/1997 US$: 22.5 Million

IEE PREPARED BY: Idrissa SAMBA, REDSO/WCA Environmental Advisor.

ENVIRONMENTAL ACTION RECOMMENDED:

Positive Determination:	
Negative Determination:	XXX
Categorical Exclusion :	XXX
Deferral :	XXX

SUMMARY OF FINDINGS:

The activities of the Agriculture and Natural Resources (ANR) Program (635-0235) and Support Project (635-0236) fall into three categories: (1) non-project assistance aimed at establishing a policy and regulatory environment favorable to improved natural resource management practices; (2) support project assistance aimed at providing the GOTG with technical assistance, training and commodities to support the implementation of the policy agenda, and (3) an NGO grants program to support field-level activities aimed at promoting resource-conserving practices.

A categorical exclusion is recommended for technical assistance pursuant to 22 CFR 216.2 (c)(2)(i), and for studies pursuant to 22 CFR 216.2 (c)(2)(iii). A negative determination is recommended for the commodities to be purchased under this project pursuant to 22 CFR 216.3 (a)(2)(iii). Training and environmental education are recommended for categorical exclusion under

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22 CFR 216.2 (c)(2)(i). The policy reform program is recommended for categorical exclusion pursuant to 22 CFR 216.2 (c)(2)(xiv). The NGO grants program is recommended for deferral until subprojects are submitted. While not contemplated, pesticide procurement or use would require clearance pursuant to 22 CFR 216.3(b).

CLEARANCE:

Mission Director: APPROVED: _____

DISAPPROVED: _____

DATE: _____

CONCURRENCE:

Bureau Environmental Officer: APPROVED: _____

DISAPPROVED: _____

DATE: _____

CLEARANCE:

GC/Africa: APPROVED: _____

DISAPPROVED: _____

DATE: _____

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The Gambia environmental profile and issues are described in the Initial Environmental Examination contained in the Program Assistance Initial Proposal (PAIP) and in the Gambia Environmental Action Plan. In addition, a considerable number of sources of information and data are available, such as The Gambia River Basin Environmental Study, which was carried out by the University of Michigan.

The activities of the Agriculture and Natural Resources (ANR) Program (635-0235) and Support Project (635-0236) fall into three categories: (1) **non-project assistance** aimed at establishing a policy and regulatory environment favorable to improved natural resource management practices; (2) **support project assistance** aimed at providing the GOTG with technical assistance, training and commodities to support the implementation of the policy agenda, and (3) an **NGO grants program** to support field-level activities aimed at promoting resource-conserving practices.

The Non-Project Assistance (NPA) Component

The NPA component of the ANR Program includes:

- Designation of a body with the authority to coordinate the implementation of the Gambia Environmental Action Plan;
- Completion of a GEAP investment plan and the inclusion of initial projects into the FY 1994-95 Public Investment Program;
- Agreement by the MOA and MNRE on a timetable for implementation of the Program Budgeting system;
- Adjustment of the FY 1994/95 recurrent budgets for MOA and MNRE, based on the results of a multi-year funding analysis foreseen for 1993;
- Publication of Annual Program Budget System reports by MOA and MNRE;
- Approval of the principle that Park and Forest revenues can be retained by the respective line Departments, to be used as Park and Forest Development Funds;
- Gazetting of a schedule of revised forestry fees and royalties;
- Forestry and Park Development Funds established as Treasury accounts for use by the respective line agencies;

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- **Repeal of the Livestock Marketing Act of 1975 by Parliament; and**

- **Revision of legislation concerning forestry, wildlife, livestock, lands and other natural resources and relevant Regulations in order to enable local communities to assume management responsibility for these resources, subject to government supervision and technical assistance.**

All of the above activities involve policy reform. Therefore, they are eligible for categorical exclusion pursuant to 22 CFR 216.2 (c)(2)(xiv). However, policy reform is an area where unforeseen impact on the environment can appear in the long run. Thus, monitoring is recommended as a tool to guarantee sustainability.

The Support Project Component

The Support Project component of ANR project (apart from the NGO grants program, which is discussed below) includes technical assistance, commodities (e.g. computers, office equipment, vehicles, and household furnishing), and funding for policy and data gathering studies. These do not appear to have foreseeable adverse effect on the environment and natural resources. Therefore, a categorical exclusion is recommended for technical assistance pursuant to 22 CFR 216.2 (c)(2)(i) and studies pursuant to 22 CFR 216.2 (c)(2)(iii). A negative determination is recommended for the commodities purchased under this project under 22 CFR 216.3 (a)(2)(iii).

NGO Grant Component

This component involves assistance to non-governmental organizations (NGOs) to carry out natural resource management activities at the village level. These activities will include the promotion of agro-forestry, soil and water conservation, and livestock/range management practices.

Forestry

Forestry activities involve: (a) policy reform aimed at vesting local communities with management responsibility for their forests; transferring park and forest revenues to park and forest development funds; and revising forestry fees and royalties; (b) technical assistance; (c) training; and (d) pilot community forestry management programs. All of the forestry activities involve technical assistance, recommended for categorical exclusion pursuant to 22 CFR 216.2 (c)(2)(i), and policy reform, recommended for categorical exclusion pursuant to 22 CFR 216.2 (c)(2)(xiv).

However, it is recommended that effect on the environment and natural resources of policy reforms be carefully monitored.

Wildlife Management

ANR Program activities affecting wildlife are limited to policy reform measures to allocate park revenues to Department of Wildlife and Conservation and to communities bordering the parks. Policy reform is recommended for categorical exclusion pursuant to 22 CFR 216.2 (c)(2)(xiv). Monitoring the effects on the environment of the policy reforms is recommended.

Soil and Water Activities

The ANR Support Project will support soil and water management practices, including the installation of anti-salinity intrusion dikes, contour dikes, gully control structures, waterways and diversions. The purpose is to improve soil quality and water resource availability. These activities, which will be carried out under NGO grants, will be more clearly defined in the NGO proposals. Current information does not permit setting a threshold decision level. Therefore the recommendation is to defer it until PVO/NGO proposals are submitted.

Livestock and Range Management

The ANR Program efforts in the area of livestock and range management involve policy reform aimed at vesting local communities with management responsibility for their range resources, and the revocation of 1975 Livestock Marketing Act (to eliminate import/export monopoly of the Livestock Marketing Board); (b) training; (e) support for improved village-level grazing management (e.g. deferred grazing, control of burning, and perhaps the creation of water points. The policy reform elements of the program are recommended for categorical exclusion pursuant to 22 CFR 216.2 (c)(2)(xiv). Monitoring of effects on the environment and natural resources is recommended.

ANNEX T: GOTG REQUEST FOR ASSISTANCE

ANNEX T: GOTG REQUEST FOR ASSISTANCE

THE REPUBLIC OF THE GAMBIA

Ministry of Finance and
Economic Affairs,
The Quadrangle,
Banjul, The Gambia.

3rd June, 1992.

Mrs Bonnie A. Pounds,
USAID/Banjul,
c/o American Embassy,
P.O. Box 596,
BANJUL.

Dear Mrs B. Pounds,

OFFICIAL REQUEST FOR FINANCING

RE: AGRICULTURE AND NATURAL RESOURCES PROGRAMME

The Ministry of Natural Resources and the Environment in collaboration with the Ministries of Agriculture and Local Government and Lands, for sometime now, has been working very closely with your office in the identification and preparation of an Agriculture and Natural Resources programme for the Gambia's Agriculture and Natural Resources sector.

So far, considerable progress has been made in the preparation of the programme whose purpose is to increase, on a sustainable basis, the value of production on land under improved natural resources management practices through (a) the establishment of a policy and regulatory environment that is conducive to the adoption of improved natural resources management practices, and (b) increased adoption of improved natural resources management practices. Without improved management of the natural resources base, including especially farmland, rangeland, and forests, it will not be possible for rural incomes to increase.

The programme is estimated to cost about $22 Million, and is scaled to a level of effort commensurate with our current and local costs affordability. The Non-Project Assistance (NPA) component of the programme will be provided to the Government of the Gambia for debt repayment, conditioned upon sector policy changes by the GOTG that will lead to improved management of the Gambia's natural resources. This NPA will help improve the financial situation of the Gambia. The Programme, will be implemented over a period of five years, with effect from 1992.

In light of the foregoing, the Government of The Gambia hereby formally requests USAID's consideration and approval for funding the programme on a grant basis.

We appreciate the generous assistance that your Government has so helpfully provided to this country under previous programmes in the agriculture and natural resources sector. We hope that you will be able to continue to support our programme for the development of the economy.

Yours faithfully,

B.B. Dabo

BAKARY B. DABO
HON. MINISTER OF
FINANCE AND ECONOMIC AFFAIRS

cc: Secretary General, President's Office

Permanent Secretary, MNRE

Permanent Secretary, MOA

Permanent Secretary, MLG&L

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ANNEX U: ECPR GUIDANCE CABLE

ACTION: AID-3 INFO COM POL/C

VZCZCJLO810BA0765
OO RUFHJL
DE RUEHC #1408/01 1580138
ZNR UUUUU ZZH
C 0601332Z JUN 92
FM SECSTATE WASHDC
TO RUFHJL/AMEMBASSY BANJUL IMMEDIATE 1883
RUEHAB/AMEMBASSY ABIDJAN IMMED 9303
BT
UNCLAS SECTION 01 OF 04 STATE 181408

LOC: 067 094
08 JUN 92 0823
CN: 39761
CHRG: AID
DIST: AID

AIDAC

E.O. 12356: N/A
TAGS:
SUBJECT: AGRICULTURE AND NATURAL RESOURCES PROGRAM (635-0235/0236): ECPR REVIEW/APPROVAL

REFS. (A) STATE 092194 (B) DAY/POUNDS FAX DATED 3/4/92 (C) BANJUL 01334

1. PER REFTEL A, USAID/GAMBIA'S PAIP FOR A MAJOR NEW INITIATIVE IN AGRICULTURE AND NATURAL RESOURCE WAS REVIEWED BY ECPR AND APPROVED. MISSION WAS COMMENDED ON THE WELL REASONED AND CLEARLY ARTICULATED PROPOSAL. A-AA/AFR DELEGATED AUTHORITY TO THE OAR/GAMBIA A.I.D. REPRESENTATIVE TO APPROVE, SUBJECT TO REDSO/WCA CONCURRENCE, THE PAAD FOR THE SUBJECT PROGRAM.

2. THIS CABLE REFLECTS ECPR ISSUES PAPER FORWARDED VIA REFFAX B AND NUMEROUS TELCONS BETWEEN CDO AND MISSION. THUS, THIS SHOULD PRESENT NO SURPRISES. NONETHELESS, CDO SINCERELY REGRETS DELAY IN FORMAL TRANSMISSION OF ISSUES AND CONCERNS.

3. THE ECPR HAD TWO MAJOR ISSUES. DUE TO THE CENTRALITY OF THESE TO IMPLEMENTATION AND IMPACT, THOSE SECTIONS OF THE PAAD WHICH ADDRESS THESE ISSUES ARE, PER REFTEL A, TO BE SUBMITTED TO AFR FOR REVIEW. THIS MAY BE DONE CONCURRENTLY WITH REDSO REVIEW, PER REFTEL C, TO EXPEDITE REVIEW AND APPROVAL.

A. POLICY DIALOGUE AND CONDITIONALITY

DISCUSSION: THE COMMITTEE FULLY ENDORSED THE USAID/GAMBIA'S PROPOSED APPROACH TO ENSURING THE SUSTAINABILITY OF AGRICULTURALLY-LED ECONOMIC GROWTH: BUILDING ON EARLIER INSTITUTIONAL DEVELOPMENT WORK TO MOVE OUT TO POLICY REFORM AT THE NATIONAL LEVEL AND DEVOLUTION OF AUTHORITY, AND THEN AIMING FOR COMMUNITY AGREEMENT ON IMPROVED LAND USE AND ACTUAL INCORPORATION OF IMPROVED PRACTICES BY FARMERS. THE PAIP HAS ADEQUATELY IDENTIFIED THE SUBSTANTIVE LINES OF POLICY AND INSTITUTIONAL REFORMS WHICH WILL BE PURSUED THROUGH THE PROGRAM: (1) POLICY FRAMEWORK AND IMPLEMENTATION PLANS ESTABLISHED THROUGH THE

ACTION: AID-3 INFO COM POL/C

VZCZCJL0810BAC765
OO RUFHJL
DE RUEHC #1408/01 1580138
ZNR UUUUU ZZH
O 060133Z JUN 92
FM SECSTATE WASHDC
TO RUFHJL/AMEMBASSY BANJUL IMMEDIATE 1883
RUEHAB/AMEMBASSY ABIDJAN IMMED 9303
BT
UNCLAS SECTION 01 OF 04 STATE 181408

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08 JUN 92 0823
CN: 39761
CHRG: AID
DIST: AID

AIDAC

E.O. 12356: N/A
TAGS:
SUBJECT: AGRICULTURE AND NATURAL RESOURCES PROGRAM (635-0235/0236): ECPR REVIEW/APPROVAL

REFS. (A) STATE 092194 (B) DAY/POUNDS FAX DATED 3/4/92 (C) BANJUL 01334

1. PER REFTEL A, USAID/GAMBIA'S PAIP FOR A MAJOR NEW INITIATIVE IN AGRICULTURE AND NATURAL RESOURCE WAS REVIEWED BY ECPR AND APPROVED. MISSION WAS COMMENDED ON THE WELL REASONED AND CLEARLY ARTICULATED PROPOSAL. A-AA/AFR DELEGATED AUTHORITY TO THE OAR/GAMBIA A.I.D. REPRESENTATIVE TO APPROVE, SUBJECT TO REDSO/WCA CONCURRENCE, THE PAAD FOR THE SUBJECT PROGRAM.

2. THIS CABLE REFLECTS ECPR ISSUES PAPER FORWARDED VIA REFFAX B AND NUMEROUS TELCONS BETWEEN CDO AND MISSION. THUS, THIS SHOULD PRESENT NO SURPRISES. NONETHELESS, CDO SINCERELY REGRETS DELAY IN FORMAL TRANSMISSION OF ISSUES AND CONCERNS.

3. THE ECPR HAD TWO MAJOR ISSUES. DUE TO THE CENTRALITY OF THESE TO IMPLEMENTATION AND IMPACT, THOSE SECTIONS OF THE PAAD WHICH ADDRESS THE ISSUES ARE, PER REFTEL A, TO BE SUBMITTED TO AFR FOR REVIEW. THIS MAY BE DONE CONCURRENTLY WITH REDSO REVIEW, PER REFTEL C, TO EXPEDITE REVIEW AND APPROVAL.

A. POLICY DIALOGUE AND CONDITIONALITY

DISCUSSION: THE COMMITTEE FULLY ENDORSED THE USAID/GAMBIA'S PROPOSED APPROACH TO ENSURING THE SUSTAINABILITY OF AGRICULTURALLY-LED ECONOMIC GROWTH: BUILDING ON EARLIER INSTITUTIONAL DEVELOPMENT WORK TO MOVE OUT TO POLICY REFORM AT THE NATIONAL LEVEL AND DEVOLUTION OF AUTHORITY, AND THEN AIMING FOR COMMUNITY AGREEMENT ON IMPROVED LAND USE AND ACTUAL INCORPORATION OF IMPROVED PRACTICES BY FARMERS. THE PAIP HAS ADEQUATELY IDENTIFIED THE SUBSTANTIVE LINES OF POLICY AND INSTITUTIONAL REFORMS WHICH WILL BE PURSUED THROUGH THE PROGRAM: (1) POLICY FRAMEWORK AND IMPLEMENTATION PLANS ESTABLISHED THROUGH THE

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1/4 UNCLASSIFIED STATE 181408/01

GAMBIA ENVIRONMENTAL ACTION PLAN (GEAP); (2) ESTABLISHMENT AND STAFFING OF NEW ENVIRONMENTAL UNITS IN THE GOTG; (3) LEGAL AND ADMINISTRATIVE REFORMS TO DEVOLVE AUTHORITY OVER NATURAL RESOURCES AND RESULTANT REVENUES TO LOCAL COMMUNITIES; (4) RATIONALIZATION OF FOREST PRODUCT PRICING; AND (5) IMPROVED PUBLIC SECTOR BUDGETING FOR AGRICULTURE AND NRM PROGRAMS. IMPLEMENTATION OF THE GEAP AND COMMUNITY LAND USE PLANS ARE LIKELY TO IDENTIFY ADDITIONAL TARGETS FOR NPA CONDITIONALITY IN THE LATTER YEARS OF THE PROGRAM. THE COMMITTEE STRONGLY ENDORSED THE PROPOSED TRANCHING OF NPA FUNDS OVER FIVE YEARS TO REINFORCE IMPLEMENTATION OF THE POLICY AND INSTITUTIONAL REFORMS.

CONCLUSION: ALTHOUGH IT IS NOT POSSIBLE TO IDENTIFY THE COMPLETE FIVE-YEAR POLICY AGENDA, THE PAAD SHOULD SPECIFY THE CONDITIONALITY AND THE PROPOSED SEQUENCING AND TRANCHING OF FUNDS FOR THE FIRST SEVERAL YEARS. FOR THE LATTER YEARS, THE PAAD SHOULD IDENTIFY POSSIBLE CONDITIONALITY, AND DESCRIBE THE PROCESS WHEREBY THESE WILL BE AGREED UPON WITH THE GOVERNMENT OF THE GAMBIA (GOTG); EMPHASIS SHOULD BE ON IMPLEMENTATION OF REFORMS. USAID/GAMBIA IS TO SUBMIT TO AFR FOR REVIEW AND APPROVAL, PRIOR TO AUTHORIZATION, A POLICY MATRIX. (MADAGASCAR KEAPEM PROGAM POLICY MATRIX MAY SERVE AS A GOOD EXAMPLE).

B. MISSION MANAGEMENT

DISCUSSION: THIS PROGRAM IS CRITICAL TO IMPLEMENTATION OF USAID/GAMBIA'S APPROVED PROGRAM STRATEGY. IT IS, HOWEVER, AMBITIOUS AND COMPLEX AND LIKELY TO BE VERY MANAGEMENT INTENSIVE, IN TERMS OF POLICY DIALOGUE, CONTRACT/GRANTEE

MANAGEMENT, AND MONITORING AND EVALUATION. WHILE THE PAIP REFLECTED EFFORTS TO REDUCE MANAGEMENT BURDEN, THE ECPR WAS PARTICULARLY CONCERNED ABOUT THE NUMBER OF MANAGEMENT UNITS FACING A SMALL STAFF OF USDH. OUR PRIMARY DESIRE IS THAT THE MISSION BE FREED UP, TO THE GREATEST EXTENT POSSIBLE, FROM OPERATIONAL RESPONSIBILITES IN ORDER TO FOCUS ON POLICY DIALOGUE AND IMPACT MONITORING.

CONCLUSIONS: THE ECPR STRONGLY ENCOURAGES THE MISSION TO PROCEED WITH ALTERNATIVE MANAGEMENT STRUCTURES SO AS NOT TO BE DIRECTLY RESPONSIBLE FOR BOTH AN INSTITUTIONAL CONTRACTOR PROVIDING TECHNICAL ASSISTANCE AND ALL THE VARIOUS PVOS IMPLEMENTING COMMUNITY-LEVEL ACTIVITIES. WE SEE TWO PRINCIPAL ALTERNATIVES:

(1) UMBRELLA PVO

RATHER THAN THE TYPICAL UMBRELLA PVO ARRANGEMENT OF A SUB-GRANT CLEARINGHOUSE, THE ECPR SUGGESTS A QUOTE LEAD UNQUOTE PVO EXPERIENCED IN ANR ACTIVITIES AND WITH MANAGEMENT CAPACITY WHICH COULD SERVE SEVERAL FUNCTIONS: (A) ACTUAL IMPLEMENTATION OF COMMUNITY-LEVEL ACTIVITIES (I.E. IT MIGHT BE THE FIRST PVO TO COMMENCE FIELD WORK TO GAIN EXPERIENCE AND TRANSFER LESSONS UNDER A PHASED APPROACH); (B) GRANT MANAGEMENT (I.E. IT WOULD MAKE AND OVERSEE SUB-GRANTS); (C) TRAINING AND TECHNICAL ASSISTANCE TO THE OTHER COOPERATING PVOS AND, POSSIBLY, TO THE GOTG AS WELL (OTHERWISE AN INSTITUTIONAL CONTRACTOR WOULD STILL BE REQUIRED); AND (D) COORDINATION OF MONITORING, EVALUATION AND REPORTING OF IMPACT OF ALL PVO ACTIVITIES.

NOTE: EXPERIMENT IN INTERNATIONAL LIVING/WORLD WILDLIFE/CARE ARE CURRENTLY IN A CONSORTIUM PROVIDING SUCH NRM SUPPORT IN UGANDA, MADAGASCAR, CAMEROON AND MALI, UNDER THE AFRICAN NATURAL RESOURCES PVO STRENGTHENING COOPERATIVE AGREEMENT. AFR CAN PROVIDE ADDITIONAL INFO ON THIS ARRANGEMENT IF USAID IS INTERESTED IN THIS OPTION.

(2) COMBINED TECHNICAL ASSISTANCE/MANAGEMENT CONTRACT

PER CIB 92-7, CONTRACTS MAY NOW BE AWARDED WHICH ALLOW THE CONTRACTOR TO EXECUTE AND ADMINISTER GRANTS. THUS, A SINGLE CONTRACT COULD BE USED FOR THE TECHNICAL ASSISTANCE TO THE GOTG, AS WELL AS THE GRANTS TO AND MANAGEMENT OF PVOS EXECUTING THE COMMUNITY-LEVEL ACTIVITIES.

EITHER OF THESE APPROACHES WOULD SIGNIFICANTLY LESSEN THE MISSION'S MANAGEMENT BURDEN BY DECREASING THE NUMBER OF UNITS FOR WHICH IT IS DIRECTLY RESPONSIBLE. FURTHERMORE,

THE COMMITTEE STRONGLY ENCOURAGES THAT OVERSIGHT OF DATA COLLECTION AND ANALYSIS, OR ACTUAL EXECUTION TO THE EXTENT NOT DONE BY THE GOTG OR COOPERATING PVOS, NECESSARY FOR PROGRAM IMPACT MONITORING AND EVALUATION ALSO BE INCLUDED IN THE SOW OF THE PRIMARY GRANTEE OR CONTRACTOR. AGAIN, THE INTENT IS TO KEEP THE MISSION'S LIMITED STAFF RESOURCES FOCUSSED ON POLICY DIALOGUE AND OVERALL PROGRAM IMPACT ASSESSMENT AND OUT OF QUOTE LOWER LEVEL UNQUOTE MANAGEMENT-INTENSIVE OPERATIONAL RESPONSIBILITIES.

USAID/GAMBIA SHOULD SUBMIT THAT SECTION OF THE PAAD HAVING TO DO WITH PROGRAM MANAGEMENT TO AFR FOR REVIEW AND APPROVAL PRIOR TO PROGRAM AUTHORIZATION. THIS SHOULD ALSO DESCRIBE HOW THE MISSION WILL MANAGE THE POLICY DIALOGUE PROCESS WITH THE GOTG.

4. SEVERAL CONCERNS WERE ALSO RAISED BY THE ECPR WHICH THE MISSION IS REQUESTED TO INCLUDE IN THE PAAD.

A. WINNERS AND LOSERS--WOMEN, THE POOR, AND CONFLICT RESOLUTION.

DISCUSSION: THE PAIP STATED THAT WOMEN WILL BE QUOTE MAJOR BENEFICIARIES UNQUOTE OF THE PROPOSED PROGRAM AND THAT NGO GRANT PROPOSALS WILL INCLUDE A CLEAR STATEMENT OF

ANTICIPATED IMPACTS QUOTE PARTICULARLY ON WOMEN UNQUOTE. THE SOCIAL SOUNDNESS ANALYSIS, HOWEVER, INDICATES THAT THERE ARE LIKELY TO BE CONSTRAINTS TO FULLY INTEGRATING WOMEN AS PARTICIPANTS IN AND BENEFICIARIES OF THE PROJECT'S ACTIVITIES.

MOREOVER, THERE IS THE STRONG POSSIBILITY OF DISPUTES ARISING AT THE COMMUNITY LEVEL IN THE FORMULATION AND IMPLEMENTATION OF LAND USE AGREEMENTS. AS LAND USE IS FORMALIZED THROUGH THE AGREEMENTS ANTICIPATED UNDER THE PROGRAM, LAND GRABBING COULD RESULT AND POWERLESS GROUPS COULD BE DISENFRANCHISED FROM THEIR LAND. THE ADJUDICATION OF CONFLICT IS LIKELY TO BE MORE IMPORTANT THAN THE ACTUAL AGREEMENTS, SO THERE MUST BE PUT IN PLACE A PROCESS FOR RESOLUTION OF RESULTANT CONFLICT. THERE WILL PROBABLY BE A NEED FOR A FACILITATOR OR ARBITRATOR TO ENSURE EQUITY AND ACCESS UNDER THESE AGREEMENTS. IT IS NOT CLEAR THAT NGOS COULD EFFECTIVELY ASSUME SUCH A ROLE.

RECOMMENDATIONS: THE PAAD SHOULD MORE FULLY ADDRESS HOW WOMEN WILL BE DIRECTLY ASSISTED BY THE PROPOSED PROGRAM, INCLUDING INNOVATIVE APPROACHES TO DEALING WITH SOCIO-CULTURAL CONSTRAINTS WHICH MIGHT BE PURSUED BY NGOS IMPLEMENTING COMMUNITY-LEVEL ACTIVITIES. PROGRAM IMPACT

INDICATORS SHOULD BE GENDER-DISAGGREGATED. THE PAAD ANALYSES SHOULD MORE FULLY ASSESS THE POSSIBLE WINNERS AND LOSERS UNDER THE PROPOSED REFORMS AND POTENTIAL SHORT-TERM ADVERSE IMPACTS ON WOMEN AND THE POOR FROM RESOURCE REALLOCATIONS AND POSTPONEMENT OF RESOURCE USE.

THE PAAD SHOULD ALSO ASSESS ALTERNATIVE INSTITUTIONAL ARRANGEMENTS TO RESOLVE CONFLICT IN THE FORMULATION AND

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IMPLEMENTATION OF THE COMMUNITY LAND USE AGREEMENTS. THE MISSION SHOULD CONSIDER WHETHER SOME CONDITIONALITY IN THE LATTER YEARS MIGHT BE APPROPRIATE TO ADDRESS THIS CONCERN.

B. GRAY AMENDMENT CONTRACTING

DISCUSSION: OPPORTUNITIES FOR CONTRACTING WITH GRAY AMENDMENT ENTITIES WERE NOT ADDRESSED IN THE PAIP.

RECOMMENDATION: IT IS AFRICA BUREAU POLICY THAT CONTRACTS AND GRANTS BE AWARDED TO GRAY AMENDMENT ENTITITES TO THE GREATEST EXTENT FEASIBLE. THE PAAD SHOULD CLEARLY IDENTIFY SUBSTANTIVE ROLES FOR GRAY AMENDMENT ENTITIES IN PROGRAM IMPLEMENTATION. FOR CONTRACTS OR GRANTS IN EXCESS OF DOLS 500,000, AT LEAST 10 PERCENT OF THE DOLLAR VALUE SHOULD BE PROVIDED TO GRAY AMENDMENT SUBCONTRACTORS, GRANTEES OR SUBGRANTEES.

C. CONSTRAINTS ANALYSIS

DISCUSSION: WHILE THE TECHNICAL, ECONOMIC AND SOCIAL ANALYSES WERE CONSIDERED TO BE VERY WELL DEVELOPED (ANNEX C, IN PARTICULAR, WAS DEEMED EXCELLENT), SEVERAL COMMITTEE MEMBERS FELT THAT THE MAIN PAIP TEXT LACKED AN ADEQUATE SUMMARY OF THE CONSTRAINTS ANALYSIS. WE WOULD EXPECT THAT THIS SUMMARY BE NO MORE THAN A COUPLE PAGES. IT SHOULD SUCCINCTLY IDENTIFY THE MAJOR CONSTRAINTS, IN SOME ORDER OF IMPORTANCE, AND HOW AND BY WHOM EACH CONSTRAINT WOULD BE REDRESSED. FOR DETAILS, YOU COULD CITE THE MORE EXTENDED TREATMENT FOUND IN THE ANNEXES. IT IS THE BUREAU'S DESIRE TO HAVE THE PAAD BE A MORE COMPLETE AND UNDERSTANDABLE STAND-ALONE DOCUMENT. THIS IS REALLY A STRUCTURAL CONCERN AND SHOULD NOT REPEAT NOT REQUIRE SIGNIFICANT REDRAFTING.

RECOMMENDATION: THAT THE PAAD INCLUDE A SUMMARY OF THE CONSTRAINTS ANALYSIS IN THE MAIN TEXT.

D. ENSURING SUSTAINABILITY OF BOTH IMPROVED NRM PRACTICES AND PRODUCTION VALUE INCREASES

DISCUSSION: THE PROJECT'S PURPOSE WAS INITIALLY STATED AS: QUOTE TO INCREASE THE VALUE OF PRODUCTION ON LAND UNDER IMPROVED RESOURCE MANAGEMENT PRACTICES UNQUOTE. IMPROVED NRM PRACTICES ARE NECESSARY BUT NOT SUFFICIENT FOR SUSTAINABILITY. THE COMMITTEE NOTED TENSION WITHIN THE STATED PROJECT PURPOSE. AS WELL AS WITHIN THE MISSION'S OVERALL COUNTRY PROGRAM STRATEGY, BETWEEN EMPHASIZING VALUE OF PRODUCTION AND PROMOTING IMPROVED NATURAL RESOURCE MANAGEMENT PRACTICES. THERE IS THE CLEAR POSSIBILILITY OF LONG-TERM ADVERSE IMPACTS ON THE ENVIRONMENT RESULTING FROM EFFORTS TO STRENGTHEN AGRICULTURAL PRODUCTION FOR EXPORT IN THE SHORT-TERM. BOTH THE PROPOSED PROJECT AND THE MISSION'S COUNTRY PROGRAM STRATEGY GIVE CREDENCE TO THIS TENSION.

RECOMMENDATIONS: RESTATE THE PROGRAM PURPOSE TO READ QUOTE SUSTAINABLE INCREASES IN THE VALUE OF PRODUCTION ON

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LAND UNDER IMPROVED RESOURCE MANAGEMENT PRACTICES UNQUOTE.

THE DESIGN TEAM SHOULD DEFINE LINKAGES AND IDENTIFY POSSIBLE CONFLICT BETWEEN THESE OBJECTIVES FOR INCLUSION IN THE PAAD ANALYSES. THE PAAD SHOULD CLEARLY ADDRESS THIS SHORT-TERM/LONG-TERM TENSION SO AS TO ALERT PROGRAM IMPLEMENTORS. AS PART OF ITS OVERALL COUNTRY PROGRAM MONITORING AND EVALUATION SYSTEM, USAID/GAMBIA SHOULD TRACK THE ENVIRONMENTAL IMPACT OF AGRICULTURAL EXPORT-LED GROWTH, BOTH WITHIN THIS PROJECT'S INTERVENTION ZONES AND MORE GENERALLY IN THE GAMBIA. (A GOOD MODEL OF THIS WOULD BE THE GHANA TRADE AND INVESTMENT PROGRAM. A COPY OF THE INITIAL ENVIRONMENTAL EXAMINATION FOR THE TIP WILL BE FORWARDED TO THE MISSION). APPROPRIATE INDICATORS SHOULD BE IDENTIFIED TO RAISE FLAGS IF ADVERSE EFFECTS INADVERTENTLY ARISE IN THE COURSE OF IMPLEMENTATION. THIS COULD BE VERY USEFUL IN NRM POLICY DIALOGUE WITH THE GOTG.

E. LIKELY PROGRESS AND IMPACT WITHIN THE LIFE-OF-PROGRAM, AND ESTABLISHMENT OF A BASELINE FOR MEASUREMENT.

DISCUSSION: ON THE ONE HAND, THE COMMITTEE RECOGNIZED THAT USAID/GAMBIA'S MORE THAN 10 YEARS OF EXPERIENCE IN NRM WILL ENHANCE THE ABILITY TO MEASURE IMPACT; ON THE OTHER HAND, PROGRESS WILL TAKE TIME AND TARGETS NEED TO REFLECT THIS REALITY. ARE TECHNOLOGIES AVAILABLE OFF-THE-SHELF WHICH HAVE POTENTIAL FOR BROAD EXTENSION? IN TERMS OF DISSEMINATION OF NRM TECHNOLOGY, COULD THE AGRICULTURAL EXTENSION SYSTEM WHICH IS BEING STRENGTHENED BY THE WORLD BANK ALSO BE USED EFFECTIVELY? (I.E. CAN THAT SYSTEM SIMPLY BE QUOTE TORQUED UNQOTE WITH THE NRM TECHNOLOGIES TO EXPAND OUTREACH AND INCREASE ADOPTION?). ALSO, THE

EXTENT OF PEOPLE LEVEL IMPACT (PLI) WAS NOT CLEAR IN THE

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PAIP. (THE COST-BENEFIT ANALYSIS INDICATES PRODUCTION INCREASES WHICH SHOULD ENHANCE INCOME OF BENEFICIARIES, BUT THE LOGFRAME IS SILENT ON ACTUAL PLI). THE PROGRAM NEEDS TO BE REALISTIC IN TERMS OF OUTPUTS AND IMPACT WITHIN THE LOP AND TIMEFRAME, WITHOUT SACRIFICING SUSTAINABILITY.

RECOMMENDATIONS: THE PAAD SHOULD ADDRESS LINKAGES TO PAST EFFORTS AND CLEARLY AND FULLY DESCRIBE OTHER DONOR ACTIVITIES. THE FINAL DESIGN SHOULD CONFIRM THE ASSUMPTION THAT TECHNOLOGIES ARE AVAILABLE.

IMPROVEMENTS IN PRODUCTIVITY SHOULD BE MEASURED IN THE MEDIUM TO LONG TERM. ALSO, TO THE EXTENT IT IS POSSIBLE, THE BASELINE FOR NRM PRACTICES AND SOIL FERTILITY SHOULD BE SET CLOSE TO THE START OF USAID'S INITIAL INVESTMENTS IN THIS SECTOR IN THE GAMBIA. (CAN THE EARLIER AID-FINANCED AERIAL PHOTOGRAPHY BE USED?)

GIVEN THE IMPORTANCE OF PLI UNDER THE DFA, THE MISSION SHOULD IDENTIFY SUCH IMPACT WITHIN THE LOP TO THE EXTENT POSSIBLE AND INDICATE WHAT INTERMEDIATE INDICATORS WILL BE USED OVER THE COURSE OF THE PROGRAM TO DEMONSTRATE PROGRESS IN ESTABLISHING CONDITIONS NECESSARY FOR PLI IN THE LONG TERM. IN ESTABLISHING APPROPRIATE IMPACT AND PROCESS INDICATORS, THE MISSION SHOULD REFER TO THE BUREAU'S NRM FRAMEWORK WHICH HAS BEEN APPROVED BY AFR AS AN ACCEPTABLE APPROACH FOR SUPPORTING LONG-TERM NRM PROGRAMS WHILE TAKING INTO ACCOUNT THE DFA'S REQUIREMENT FOR PLI.

F. PROPOSED LEVEL OF FUNDING.

DISCUSSION: SEVERAL RELATED ISSUES AROSE. (1) IS THE LEVEL OF NPA APPROPRIATE FOR THE PROPOSED REFORMS? IT WAS AGREED THAT THE POLICY AND INSTITUTIONAL REFORMS ARE CRITICAL TO INSURING THAT AGRICULTURALLY-LED ECONOMIC GROWTH IN THE GAMBIA IS SUSTAINABLE. THE PRELIMINARY ECONOMIC ANALYSIS CONCLUDES THAT THE POTENTIAL BENEFITS OF THE ANR PROGRAM WOULD OUTWEIGH THE PROPOSED PROGRAM'S COSTS. IN FACT, IT MAY BE MORE POSITIVE THAN INITIALLY ESTIMATED SINCE THE STATUS QUO (DOING NOTHING) WOULD RESULT IN DECLINING PRODUCTIVITY AND INCOME OVER TIME.

(2) THE PROJECT ASSISTANCE BUDGET CURRENTLY HAS LIMITED FUNDING FOR TRAINING (LESS THAN 7 OF TOTAL LOP). TO THE EXTENT THAT TRAINING IS NECESSARY TO ENSURE INSTITUTIONAL CAPACITY FOR MANAGEMENT AND SUSTAINABILITY OF THE

INVESTMENT, SUCH REQUIREMENTS SHOULD BE FUNDED. BASED ON CURRENT PROJECTED FUNDING LEVELS AND A MORTGAGE ANALYSIS, AN LOP OF DOLS 20-24 MILLION COULD BE SUPPORTED. THIS WOULD REQUIRE THAT USAID/GAMBIA REFRAIN FROM ANY NEW STARTS FOR SEVERAL YEARS, BUT THIS IS FEASIBLE AND CONSISTENT WITH THE MISSION'S COUNTRY PROGRAM STRATEGY.

RECOMMENDATIONS: (1) THE PROPOSED DOLS 10.0 MILLION OF NPA, TO BE RELEASED OVER FIVE YEARS, APPEARS SOUND. THE

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PAAD ECONOMIC ANALYSIS SHOULD MORE FULLY INCORPORATE THE COSTS OF THE STATUS QUO. (2) THE MISSION SHOULD CAREFULLY CONSIDER THE MIX AND LEVEL OF PROJECT ASSISTANCE IN LIGHT OF THE MONITORING AND EVALUATION REQUIREMENTS AND ANY ADDITIONAL TRAINING NEEDS. THE INITIAL ESTIMATION OF DOLS 10.0 MILLION FOR THE SUPPORT COMPONENT MAY BE INCREASED BY DOLS 2-4 MILLION AS THE FINAL DESIGN DICTATES.

5. AFR LOOKS FORWARD TO RECEIVING POLICY MATRIX AND MANAGEMENT PLAN, AS DESCRIBED ABOVE. WE WILL REVIEW AND COMMENT WITHIN THREE (3) WORKING DAYS OF RECEIPT.

6. AGAIN, WE CONGRATULATE USAID/GAMBIA ON AN EXCELLENT PROPOSAL. IT WAS SOUNDLY WELL CONCEIVED, EXTENSIVELY DEVELOPED FOR THE PAIP STAGE, AND CLEANLY WRITTEN. WE ALSO COMPLIMENT YOU ON THE EXTENSIVE CONSULTATIVE PROCESS WHICH THE MISSION PURSUED EARLY ON IN PROGRAM DEVELOPMENT. THESE BODE WELL FOR A SOUND PROGRAM WHICH HAS POTENTIAL FOR A SIGNIFICANT DEVELOPMENT IMPACT. KANTER
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ANNEX V: COUNTRY CHECKLIST

ANNEX V: COUNTRY CHECKLIST

5C(1) - COUNTRY CHECKLIST - The Gambia

Listed below are statutory criteria applicable to the eligibility of countries to receive the following categories of assistance: (A) both Development Assistance and Economic Support Funds; (B) Development Assistance funds only; or (C) Economic Support Funds only.

A. COUNTRY ELIGIBILITY CRITERIA APPLICABLE TO BOTH DEVELOPMENT ASSISTANCE AND ECONOMIC SUPPORT FUND ASSISTANCE

1. Narcotics

a. **Negative Certification** (FY 1991 Appropriations Act Sec. 559(b)): Has the President certified to the Congress that the government of the recipient country is failing to take adequate measures to prevent narcotic drugs or other controlled substances which are cultivated, produced or processed illicitly, in whole or in part, in such country or transported through such country, from being sold illegally within the jurisdiction of such country to United States Government personnel or their dependents or from entering the United States unlawfully? — No

b. **Positive Certification** (FAA Sec. 481(h)): (This provision applies to assistance of any kind provided by grant, sale, loan, lease, credit, guaranty, or insurance, except assistance from the Child Survival Fund or relating to international narcotics control, disaster and refugee relief, narcotics education and awareness, or the provision of food or medicine.) If the recipient is a "major illicit drug producing country" (defined as a country producing during a fiscal year at least five metric tons of opium or 500 metric tons of coca or marijuana) or a "major drug-transit country" (defined as a country that is a significant direct source of illicit drugs significantly affecting the United States, through which such drugs are — N/A

transported, or through which significant sums of drug-related profits are laundered with the knowledge or complicity of the government):

(1) does the country have in place a bilateral narcotics agreement with the United States, or a multilateral narcotics agreement?

(2) has the President in the March 1 International Narcotics Control Strategy Report (INCSR) determined and certified to the Congress (without Congressional enactment, within 45 days of continuous session, of a resolution disapproving such a certification), or has the President determined and certified to the Congress on any other date (with enactment by Congress of a resolution approving such certification), that (a) during the previous year the country has cooperated fully with the United States or taken adequate steps on its own to satisfy the goals agreed to in a bilateral narcotics agreement with the United States or in a multilateral agreement, to prevent illicit drugs produced or processed in or transported through such country from being transported into the United States, to prevent and punish drug profit laundering in the country, and to prevent and punish bribery and other forms of public corruption which facilitate production or shipment of illicit drugs or discourage prosecution of such acts, or that (b) the vital national interests of the United States require the provision of such assistance?

c. **Government Policy** (1986 Anti-Drug Abuse Act of 1986 Sec. 2013(b): (This section applies to the same categories of assistance subject to the restrictions in FAA Sec. 481(h), above.) If recipient country is a "major illicit drug producing country" or "major drug-transit country" (as defined for the purpose of FAA Sec 418(h), has the President submitted a report to Congress listing such country as one: (a) which, as a matter of government policy, encourages or facilitates the

No

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production or distribution of illicit drugs; (b) in which any senior official of the government engages in, encourages, or facilitates the production or distribution of illegal drugs; (c) in which any member of a U.S. Government Agency has suffered or been threatened with violence inflicted by or with the complicity of any government officer; or (d) which fails to provide reasonable cooperation to lawful activities of U.S. drug enforcement agents, unless the President has provided the required certification to Congress pertaining to U.S. national interests and the drug control criminal prosecution efforts of that country?

2. **Indebtedness to U.S. citizens** (FAA Sec. 620(c)): If assistance is to a government, is the government indebted to any U.S. citizen for goods or services furnished or ordered where: (a) such citizen has exhausted available legal remedies, (b) the debt is not denied or contested by such government, or (c) the indebtedness arises under an unconditional guaranty of payment given by such government or controlled entity? No

3. **Seizure of U.S. Property** (FAA Sec. 620(e)(1)): If assistance is to a government, has it (including any government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?. No

4. **Communist countries** (FAA Secs. 620(a), 620(f), 620(d); FY 1991 Appropriations Act Secs. 512, 545): Is recipient country a Communist country? If so, has the President: (a) determined that assistance to the country is vital to the security of the United States, that the recipient country is not controlled by the international Communist conspiracy, and that such assistance will further promote the independence of the recipient country No

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from international communism, or (b) removed a country from applicable restrictions on assistance to communist countries upon a determination and report to Congress that such action is important to the national interest of the United States? Will assistance be provided either directly or indirectly to Angola, Cambodia, Cuba, Iraq, Libya, Vietnam, Iran or Syria? Will assistance be provided to Afghanistan without a certification, or will assistance be provided inside Afghanistan through the Soviet-controlled government of Afghanistan?

5. **Mob Action** (FAA Sec. 620(j)): Has the country permitted, or failed to take adequate measures to prevent, damage or destruction by mob action of U.S. property? — No

6. **OPIC Investment Guaranty** (FAA Sec. 620(l)): Has the country failed to enter into an investment guaranty agreement with OPIC? — No

7. **Seizure of U.S. Fishing Vessels** (FAA Sec. 620(o); Fishermen's Protective Act of 1967 (as amended) Sec. 5): (a) Has the country seized, or imposed any penalty or sanction against, any U.S. fishing vessel because of fishing activities in international waters? (b) If so, has any deduction required by the Fishermen's Protective Act been made? — No

8. **Loan Default** (FAA Sec. 620(q); FY 1991 Appropriations Act Sec. 518 (Brooke Amendment)): (a) Has the government of the recipient country been in default for more than six months on interest or principal of any loan to the country under the FAA? (b) Has the country been in default for more than one year on interest or principal on any U.S. loan under a program for which the FY 1990 Appropriations Act appropriates funds? — (a) No (b) No

9. **Military Equipment** (FAA Sec. 620(s)): If contemplated assistance is development loan or to come from Economic Support Fund, has the Administrator taken into account the percentage of the — N/A

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country's budget and amount of the country's foreign exchange or other resources spent on military equipment? (Reference may be made to the annual "Taking Into Consideration" memo: "Yes, taken into account by the Administrator at time of approval of Agency OYB." This approval by the administrator of the Operational Year Budget can be the basis for an affirmative answer during the fiscal year unless significant changes in circumstances occur.)

10. **Diplomatic Relations with U.S.** (FAA Sec. 620(t)): Has the country severed diplomatic relations with the United States? If so, have relations been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?

No

11. **U.N. Obligations** (FAA Sec. 620(u)): What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the A.I.D. Administrator in determining the current A.I.D. Operational Year Budget? (Reference may be made to the "Taking into Consideration" memo.)

The Gambia's arrears to the UN totals $291,514. This was taken into account in the Administrator's annual "Taking Into Consideration" Memo.

12. **International Terrorism**

a. Sanctuary and support (FY 1991 Appropriations Act Sec. 556; FAA Sec. 620A): Has the country been determined by the President to: (a) grant sanctuary from prosecution to any individual or group which has committed an act of international terrorism, or (b) otherwise support international terrorism, unless the President has waived this restriction on grounds of national security or for humanitarian reasons?

(a) No
(b) No

b. Airport Security (ISDCA of 1985 Sec. 552(b)): Has the Secretary of State determined that the country is a high terrorist threat country after the Secretary of Transportation has determined, pursuant to section 1115(e)(2) of the Federal Aviation Act of 1958, that an airport in the country does not maintain

No

and administer effective security measures?

13. **Discrimination** (FAA Sec. 666(b)): Does the country object, on the basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. who is present in such country to carry out economic development programs under the FAA?	No
14. **Nuclear Technology** (FAA Secs. 669, 670): Has the country, after August 3, 1977, delivered to any other country or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards, and without special certification by the President? Has it transferred a nuclear explosive device to a non-nuclear weapon state, or if such a state, either received or detonated a nuclear explosive device? If the country is a non-nuclear weapon state, has it, on or after August 8, 1985, exported (or attempted to export) illegally from the United States any material, equipment, or technology which would contribute significantly to the ability of a country to manufacture a nuclear explosive device? (FAA Sec. 620E permits a special waiver of Sec. 669 for Pakistan.)	No No No
15. **Algiers Meeting** (ISDCA of 1981, Sec. 720): Was the country represented at the Meeting of Ministers of Foreign Affairs and Heads of Delegations of the Non-Aligned Countries to the 36th General Assembly of the U.N. on Sept. 25 and 28, 1981, and did it fail to disassociate itself from the communique issued? If so, has the President taken it into account? (Reference may be made to the "Taking into Consideration" memorandum.)	Yes, this was taken into account in the Administrator's annual "Taking Into Consideration" memorandum.
16. **Military Coup** (FY 1991 Appropriations Act Sec. 513): Has the duly elected Head of Government of the country been deposed by military coup or decree? If assistance has been terminated, has the President notified Congress that a democratically elected government has taken office prior	No

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to the resumption of assistance?

17. **Refugee Cooperation** (FY 1991 Appropriations Act Sec. 539): Does the recipient country fully cooperate with the international refugee assistance organizations, the United States, and other governments in facilitating lasting solutions to refugee situations, including resettlement without respect to race, sex, religion, or national origin? — Yes

18. **Exploitation of Children** (FY 1991 Appropriations Act Sec. 599D, amending FAA Sec. 116): Does the recipient government fail to take appropriate and adequate measures, within its means, to protect children from exploitation, abuse or forced conscription into military or paramilitary services? — No

B. COUNTRY ELIGIBILITY CRITERIA APPLICABLE ONLY TO DEVELOPMENT ASSISTANCE ("DA")

1. **Human Rights Violations** (FAA Sec. 116): Has the Department of State determined that this government has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, can it be demonstrated that contemplated assistance will directly benefit the needy? — No

2. **Abortions** (FY 1991 Appropriations Act Sec. 535): Has the President certified that use of DA funds by this country would violate any of the prohibitions against use of funds to pay for the performance of abortions as a method of family planning, to motivate or coerce any person to practice abortions, to pay for the performance of involuntary sterilization as a method of family planning, to coerce or provide any financial incentive to any person to undergo sterilizations, to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning? — No

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C. COUNTRY ELIGIBILITY CRITERIA APPLICABLE ONLY TO ECONOMIC SUPPORT FUNDS ("ESF")

Human Rights Violations (FAA Sec. 502B): Has it been determined that the country has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, has the President found that the country made such significant improvement in its human rights record that furnishing such assistance is in the U.S. national interest?	No

5C(2) - ASSISTANCE CHECKLIST

Listed below are statutory criteria applicable to the assistance resources themselves, rather than to the eligibility a country to receive assistance. This section is divided into three parts. Part A includes criteria applicable to both Development Assistance and Economic Support Fund resources. Part B includes criteria applicable only to Development Assistance resources. Part C includes criteria applicable only to Economic Support Funds.

CROSS REFERENCE: IS COUNTRY CHECKLIST UP TO DATE?

A. CRITERIA APPLICABLE TO BOTH DEVELOPMENT ASSISTANCE AND ECONOMIC SUPPORT FUNDS

1. **Host Country Development Efforts** (FAA Sec. 601(a)): Information and conclusions on whether assistance will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions.	(a) N/A (b) N/A (c) N/A (d) Privatization of Abuko abattoir and repeal of 1975 Livestock Marketing Act are program conditionalities and as such, program is encouraging elimination of monoploy potential and fostering competition. (e) The rationaliza-

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	tion of funding and revenue generation for natural resource management, which is a program conditionality, will improve efficiency in many sectors. (f) N/A
2. **U.S. Private Trade and Investment** (FAA Sec. 601(b)): Information and conclusions on how assistance will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise.)	Technical assistance and training will be procured from an American firm.
3. **Congressional Notification**	
a. General requirement (FY 1991 Appropriations Act Secs. 523 and 591; FAA Sec. 634A): If money is to be obligated for an activity not previously justified to Congress, or for an amount in excess of amount previously justified to Congress, has Congress been properly notified (unless the notification requirement has been waived because of substantial risk to human health or welfare)?	A Congressional Notificaiton will be sent to Congress and the waiting period will expire before Project funds are obligated.
b. Notice of new account obligation (FY 1991 Appropriations Act Sec. 514): If funds are being obligated under an appropriation account to which they were not appropriated, has the President consulted with and provided a written justification to the House and Senate Appropriations Committees and has such obligation been subject to regular notification procedures?	N/A
c. Cash transfers and nonproject sector assistance (FY 1991 Appropriations Act Sec. 575(b)(3)): If funds are to be made available in the form of cash transfer or nonproject sector assistance, has the Congressional notice included a detailed description of how the funds will be used, with a discussion of U.S. interests to be served and a description of any economic policy reforms to be promoted?	These procedures will be followed in any year of NPA obligation.

4. **Engineering and Financial Plans** (FAA Sec. 611(a)): Prior to an obligation in excess of $500,000, will there be: (a) engineering, financial or other plans necessary to carry out the assistance; and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?	(a) Yes (b) Yes
5. **Legislative Action** (FAA Sec. 611(a)(2)): If legislative action is required within recipient country with respect to an obligation in excess of $500,000, what is the basis for a reasonable expectation that such action will be completed in time to permit orderly accomplishment of the purpose of the assistance?	The GOTG has requested assistance to strengthen the national policy and institutional framework governing the natural resources and the creation of an enabling framework that will allow local communities to assume management control of, and benefit financially from local land-based resources. Statutes scheduled for revision are non-controversial and have been discussed thoroughly and agreed upon in policy dialogue during program design.
6. **Water Resources** (FAA Sec. 611(b); FY 1991 Appropriations Act Sec. 501): If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See A.I.D. Handbook 3 for guidelines.)	This is not a water resources project.
7. **Cash Transfer and Sector Assistance** (FY 1991 Appropriations Act Sec. 575(b)): Will cash transfer or nonproject sector assistance be maintained in a separate account and not commingled with other funds (unless such requirements are waived by Congressional notice for nonproject sector assistance)?	Yes

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8. **Capital Assistance** (FAA Sec. 611(e)): If project is capital assistance (e.g., construction), and total U.S. assistance for it will exceed $1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability to maintain and utilize the project effectively?	This is not a capital project.
9. **Multiple Country Objectives** (FAA Sec. 601(a)): Information and conclusions on whether projects will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.	(a) N/A (b) N/A (c) N/A (d) Privatization of Abuko abattoir and repeal of 1975 Livestock Marketing Act are program conditionalities and as such, program is encouraging elimination of monoploy potential and fostering competition. (e) The rationalization of funding and revenue generation for natural resource management, which is a program conditionality, will improve efficiency in many sectors. (f) N/A
10. **U.S. Private Trade** (FAA Sec. 601(b)): Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).	Technical assistance and training will be provided by an appropriate American firm.
11. **Local Currencies**	
a. **Recipient Contributions** (FAA Secs 612(b), 636(h)): Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies	Dollars will be used to retire government public sector debt. No local currency will be made available.

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owned by the U.S. are utilized in the lieu of dollars.

b. U.S.-Owned Currency (FAA Sec. 612(d)): Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?	No local currency will be generated.
c. Separate Account (FY 1991 Appropriations Act Sec. 575). If assistance is furnished to a foreign government under arrangements which result in the generation of local currencies:	N/A
(1) Has A.I.D. (a) required that local currencies be deposited in a separate account established by the recipient government, (b) entered into an agreement with that government providing the amount of local currencies to be generated and the terms and conditions under which the currencies so deposited may be utilized, and (c) established by agreement the responsibilities of A.I.D. and that government to monitor and account for deposits into and disbursements from the separate account?	N/A
(2) Will such local currencies, or an equivalent amount of local currencies, be used only to carry out the purposes of the DA or ESF chapters of the FAA (depending on which chapter is the source of the assistance) or for the administrative requirements of the United States Government?	N/A
(3) Has A.I.D. taken all appropriate steps to ensure that the equivalent of local currencies disbursed from the separate account are used for the agreed purposes?	N/A
(4) If assistance is terminated to a country, will any unencumbered balances of funds remaining in a separate account be disposed of for purposes agreed to by the recipient government and the United States Government?	No

12. **Trade Restrictions**

a. Surplus Commodities (FY 1991 Appropriations Act Sec. 521(a)): If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity? — No

b. Textiles (Lautenberg Amendment) (FY 1991 Appropriations Act Sec. 521(c)): Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807," which allows reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, prefeasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel? — No

13. **Tropical Forests** (FY 1991 Appropriations Act Sec. 533(c)(3)): Will funds be used for any program, project or activity which would (a) result in any significant loss of tropical forests, or (b) involve industrial timber extraction in primary tropical forest areas? — Yes

14. **PVO Assistance**

a. Auditing and registration (FY 1991 Appropriations Act Sec. 537): If assistance is being made available to a PVO, has that organization provided upon timely request any document, file, or record necessary to the auditing requirements of A.I.D., and is the PVO registered with A.I.D.? — Yes

b. Funding sources (FY 1991 Appropriations Act, Title II, under heading "Private and Voluntary Organizations"): If assistance is to be made to a United States PVO (other than a cooperative development organization), does it obtain at least 20 percent of its total annual funding for international activities from sources other than the United States Government?	Yes
15. **Project Agreement Documentation** (State Authorization Sec. 139 (as interpreted by conference report)): Has confirmation of the date of signing of the project agreement, including the amount involved, been cabled to State L/T and A.I.D. LEG within 60 days of the agreement's entry into force with respect to the United States, and has the full text of the agreement been pouched to those same offices? (See Handbook 3, Appendix 6G for agreements covered by this provision).	No. Because a date has not yet been set, however, the procedures will be followed.
16. **Metric System** (Omnibus Trade and Competitiveness Act of 1988 Sec. 5164, as interpreted by conference report, amending Metric Conversation Act of 1975 Sec. 2, and as implemented through A.I.D. policy): Does the assistance activity use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of measure from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?	Yes Yes Yes

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17. **Women in Development** (FY 1991 Appropriations Act, Title II, under heading "Women in Development"): Will assistance be designed so that the percentage of women participants will be demonstrably increased?	As a large percentage of resource-dependent activities are performed by women, women will be essential participants in the ANR Program. Efforts will be made to encourage women to actively participate and lead in community resource management and to include as high a percentage of women as possible in the training programs. Continued attention will be focused on monitoring gender impacts of ANR Programs.
18. **Regional and Multilateral Assistance** (FAA Sec. 209): Is assistance more efficiently and effectively provided through regional or multilateral organizations? If so, why is assistance not so provided? Information and conclusions on whether assistance will encourage developing countries to cooperate in regional development programs.	This is not a regional or multilateral program.
19. **Abortions** (FY 1991 Appropriations Act, Title II, under heading "Population, DA," and Sec. 525):	
a. Will assistance be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization?	No
b. Will any funds be used to lobby for abortion?	No

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20. **Cooperatives** (FAA Sec. 111): Will assistance help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward a better life?	Assistance will help develop informal co-operatives. In so far as the assistance will be used to give local communities control over natural resources to be managed in a cooperative manner.
21. **U.S.-Owned Foreign Currencies**	
a. **Use of currencies** (FAA Secs. 612(b), 636(h); FY 1991 Appropriations Act Secs. 507, 509): Describe steps taken to assure that, to the maximum extent possible, foreign currencies owned by the U.S. are utilized in lieu of dollars to meet the cost of contractual and other services.	N/A
b. **Release of currencies** (FAA Sec. 612(d)): Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?	No
22. **Procurement**	
a. **Small business** (FAA Sec. 602(a)): Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed?	Yes
b. **U.S. procurement** (FAA Sec. 604(a)): Will all procurement be from the U.S. except as otherwise determined by the President or determined under delegation from him?	Yes
c. **Marine insurance** (FAA Sec. 604(d)): If the cooperative country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company?	N/A

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d. Non-U.S. agricultural procurement (FAA Sec. 604(e)): If non-U.S. procurement of agricultural commodity or product thereof is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in U.S.)	N/A
e. Construction or engineering services (FAA Sec. 604(g)): Will construction or engineering services be procured from firms of advanced developing countries which are otherwise eligible under Code 941 and which have attained a competitive capability in international markets in one of these areas? (Exception for those countries which receive direct Economic assistance under the FAA and permit United States firms to compete for construction or engineering services financed from assistance programs of these countries.)	N/A
f. Cargo preference shipping (FAA Sec. 603)): Is the shipping excluded from compliance with the requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 percent of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent such vessels are available at fair and reasonable rates?	N/A
g. Technical assistance (FAA Sec. 621(a)): If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? Will the facilities and resources of other Federal agencies be utilized, when they are particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?	Yes Yes

h. U.S. air carriers (International Air Transportation Fair Competitive Practices Act, 1974): If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available?	Yes
i. Termination for convenience of U.S. Government (FY 1991 Appropriations Act Sec. 504): If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States?	Such provisions will be included in the standard provisions of such a contract.
j. Consulting services (FY 1991 Appropriations Act Sec. 524): If assistance is for consulting service through procurement contract pursuant to 5 U.S.C. 3109, are contract expenditures a matter of public record and available for public inspection (unless otherwise provided by law or Executive order)?	Yes
k. Metric conversion (Omnibus Trade and Competitiveness Act of 1988, as interpreted by conference report, amending Metric Conversion Act of 1975 Sec. 2, and as implemented through A.I.D. policy): Does the assistance program use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of measure from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?	Yes Yes Yes

1. **Competitive Selection Procedures** (FAA Sec. 601(e)): Will the assistance utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?	Yes
23. **Construction**	
a. Capital project (FAA Sec. 601(d)): If capital (e.g., construction) project, will U.S. engineering and professional services be used?	N/A
b. Construction contract (FAA Sec. 611(c)): If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable?	There will not be construction.
c. Large projects, Congressional approval (FAA Sec. 620(k)): If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed $100 million (except for productive enterprises in Egypt that were described in the Congressional Presentation), or does assistance have the express approval of Congress?	N/A
24. **U.S. Audit Rights** (FAA Sec. 301(d)): If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights?	N/A
25. **Communist Assistance** (FAA Sec. 620(h)): Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries.	Yes
26. **Narcotics**	
a. Cash reimbursements (FAA Sec. 483): Will arrangements preclude use of financing to make reimbursements, in the form of cash payments, to persons whose illicit drug crops are eradicated?	Yes

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b. Assistance to narcotics traffickers (FAA Sec. 487): Will arrangements take "all reasonable steps" to preclude use of financing to or through individuals or entities which we know or have reason to believe have either: (1) been convicted of a violation of any law or regulation of the United States or a foreign country relating to narcotics (or other controlled substances); or (2) been an illicit trafficker in, or otherwise involved in the illicit trafficking of, any such controlled substance? — Yes

27. **Expropriation and Land Reform** (FAA Sec. 620(g)): Will assistance preclude use of financing to compensate owners for expropriated or nationalized property, except to compensate foreign nationals in accordance with a land reform program certified by the President? — Yes

28. **Police and Prisons** (FAA Sec. 660): Will assistance preclude use of financing to provide training, advice, or any financial support for police, prisons, or other law enforcement forces, except for narcotics programs? — Yes

29. **CIA Activities** (FAA Sec. 662): Will assistance preclude use of financing for CIA activities? — Yes

30. **Motor Vehicles** (FAA Sec. 636(i)): Will assistance preclude use of financing for purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained? — Yes

31. **Military Personnel** (FAA 1991 Appropriations Act Sec. 503): Will assistance preclude use of financing to pay pensions, annuities, retirement pay, or adjusted service compensation for prior or current military personnel? — Yes

32. **Payment of U.N. Assessments** (FY 1991 Appropriations Act Sec. 505): Will assistance preclude use of financing to pay U.N. assessments, arrearages or dues? — Yes

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33. **Multilateral Organization Lending** (FY 1991 Appropriations Act Sec. 506): Will assistance preclude use of financing to carry out provisions of FAA section 209(d) (transfer of FAA funds to multilateral organizations for lending)?	Yes
34. **Export of Nuclear Resources** (FY 1991 Appropriations Act Sec. 510): Will assistance preclude use of financing to finance the export of nuclear equipment, fuel, or technology?	Yes
35. **Repression of Population** (FY 1991 Appropriations Act Sec. 511): Will assistance preclude use of financing for the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights?	Yes
36. **Publicity or Propaganda** (FY 1991 Appropriations Act Sec. 516): Will assistance be used for publicity or propaganda purposes designed to support or defeat legislation pending before Congress, to influence in any way the outcome of a political election in the United States, or for any publicity or propaganda purposes not authorized by Congress?	No
37. **Marine Insurance** (FY 1991 Appropriations Act Sec. 563): Will any A.I.D. contract and solicitation, and subcontract entered into under such contract, include a clause requiring that U.S. marine insurance companies have a fair opportunity to bid for marine insurance when such insurance is necessary or appropriate?	Yes
38. **Exchange for Prohibited Act** (FY 1991 Appropriations Act Sec. 569): Will any assistance be provided to any foreign government (including any instrumentality or agency thereof), foreign person, or United States person in exchange for that foreign government or person undertaking any action which is, if carried out by the United States Government, a United States official or employee, expressly prohibited	No

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by a provision of United States law?

B. CRITERIA APPLICABLE TO DEVELOPMENT ASSISTANCE ONLY

1. **Agricultural Exports (Bumpers Amendment)** (FY 1991 Appropriations Act Sec. 521(b), as interpreted by conference report for original enactment): If assistance is for agricultural development activities (specifically, any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or training), are such activities: (1) specifically and principally designed to increase agricultural exports by the host country to a country other than the United States, where the export would lead to direct competition in that third country with exports of a similar commodity grown or produced in the United States, and can the activities reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity; or (2) in support of research that is intended primarily to benefit U.S. producers?	No No
2. **Tied Aid Credits** (FY 1991 Appropriations Act, Title II, under heading "Economic Support Fund"): Will DA funds be used for tied aid credits?	No
3. **Appropriate Technology** (FAA Sec. 107): Is special emphasis placed on use of appropriate technology (defined as relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small business, and small incomes of the poor)?	Yes
4. **Indigenous Needs and Resources** (FAA Sec. 281(b)): Describe extent to which the activity recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political process	Assistance to the MNRE will strengthen indigenous analytic capacity and enhance the enabling environment for sustainable development. Training for host country nationals will

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essential to self-government.	strengthen indigenous intellectual resources and encourage effective participation in governmental processes. NGO subgrants will be awarded on the condition that particular local needs have been identified and means by which to address them devised. The program focuses on strengthening the natural resource base and encouraging sustainable development has for many years been a priority of the GOTG.
5. **Economic Development** (FAA Sec. 101(a)): Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?	Yes
6. **Special Development Emphases** (FAA Secs. 102(b), 113, 281(a)): Describe extent to which activity will: (a) effectively involve the poor in development by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, dispersing investment from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions; (b) encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries.	(a) The Program will enable local communities to control resource use. The creation of a Community Resource Use Agreements be a participatory exercise and will promote resource-conserving technologies at the village level. These technologies and appropriate development strategies will be designed and implemented through NGOs and the GOTG, with particular attention to their impact on the natural

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resource base of the community.
(b) Focus on participatory resource management at the village level will encourage democratic local government institutions, particularly by returning authority over resource use to local communities through Community Resource Use Agreements.
(c) The Program's emphasis on sustainable use of the natural resource base will raise rural incomes by increasing productivity of crop, livestock and forest systems.
(d) The degradation of the natural resource base affects particularly severely women, for example, the additional labor necessitated by fuelwood scarcity demands additional labor. Thus, the program goal of increasing productivity in a sustainable manner will directly benefit women. In selecting Gambians to receive training, an emphasis will be placed on the need for women. Continued attention will be focused on monitoring gender impacts of ANR programs.
(e) Regional cooperation will be

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	utilized through use of third-country training of Gambians, site visits of third-country natural resource activities, sharing technologies with regional countries.
7. **Recipient Country Contribution** (FAA Secs. 110, 124(d)): Will the recipient country provide at least 25 percent of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?	A waiver will be sought to exempt recipient country from cost-sharing requirements under FAA Sec. 110. The Gambia is an "RLDC."
8. **Benefit to Poor Majority** (FAA Sec. 128(b)): If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority?	Yes
9. **Abortions** (FAA Sec. 104(f); FY 1991 Appropriations Act, Title II, under heading "Population, DA" and sec. 535):P	
a. Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions?	No
b. Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilizations?	No
c re any of the funds to be made avail e to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization?	No

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d. Will funds be made available only to voluntary family planning projects which offer, either directly or through referral to, or information about access to, a broad range of family planning methods and services?	N/A
e. In awarding grants for natural family planning, will any applicant be discriminated against because of such applicant's religious or conscientious commitment to offer only natural family planning?	N/A
f. Are any of the funds to be used to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning?	No
g. Are any of the funds to be made available to any organization if the President certifies that the use of these funds by such organization would violate any of the above provisions related to abortions and involuntary sterilization?	No
10. **Contract Awards** (FAA Sec. 601(e)): Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?	Yes
11. **Disadvantaged Enterprises** (FY 1991 Appropriations Act Sec. 567): What portion of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, colleges and universities having a student body in which more than 40 percent of the students are Hispanic Americans, and private and voluntary organizations which are controlled by individuals who are Black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)?	The technical assistance component of this project will be fully competed and socially-disadvantaged enterprises will be encouraged to submit proposals. According to the F.A.R., contracts for $500,000 or more will contain a provision requiring at least 10% of the dollar value of the contract be sub-contracted with a disadvantaged enterprise

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12. **Biological Diversity** (FAA Sec. 119(g)): Will the assistance: (a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity; (b) be provided under a long-term agreement in which the recipient country agrees to protect ecosystem or other wildlife habitats; (c) support efforts to identify and survey ecosystems in recipient countries worthy of protection; or (d) by any direct or indirect means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas?

(a) Yes
(b) Yes
(c) Yes
(d) No

13. **Tropical Forests** (FAA Sec. 118; FY 1991 Appropriations Act Sec. 533(c)-(e) & (g)):

a. A.I.D. Regulation 16: Does the assistance comply with the environmental procedures set forth in A.I.D. Regulation 16?

Yes

b. Conservation: Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible: (1) stress the importance of conserving and sustainability managing forest resources; (2) support activities which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and help countries identify and implement alternatives to colonizing forested areas; (3) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (4) help end destructive slash-and-burn agriculture by supporting stable and productive farming practices; (5) help conserve forests which have not yet been degraded by helping to increase production on lands already cleared or degraded; (6) conserve forested watersheds and rehabilitate those which have been deforested; (7) support training, research, and other actions which lead to sustainable and more environmentally sound practices

Yes
(1) Yes
(2) Yes
(3) Yes
(4) Yes
(5) Yes
(6) Yes
(7) Yes
(8) Yes
(9) Yes
(10) Yes
(11) Yes
(12) Yes
(13) Yes

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for timber harvesting, removal, and processing; (8) support research to expand knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (9) conserve biological diversity in forest areas by supporting efforts to identify, establish, and maintain a representative network of protected tropical forest ecosystems on a worldwide basis, by making the establishment of protected areas a condition of support for activities involving forest clearance or degradation, and by helping to identify tropical forest ecosystems and species in need of protection and establish and maintain appropriate protected areas; (10) seek to increase the awareness of U.S. Government agencies and other donors of the immediate and long-term value of tropical forests; (11) utilize the resources and abilities of all relevant U.S. Government agencies; (12) be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land; and (13) take full account of the environmental impacts of the proposed activities on biological diversity?

c. Forest degradation: Will assistance be used for: (1) the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; (2) actions which will significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas; (3) activities which would result in the conversion of forest lands to the rearing of livestock; (4) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undergraded forest lands; (5) the colonization of forest lands; or (6) the construction of dams or other water control structures

(1) No
(2) No
(3) No
(4) No
(5) No
(6) No

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which flood relatively undergraded forest lands, unless with respect to each such activity an environmental assessment indicates that the activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?	
d. Sustainable forestry: If assistance relates to tropical forests, will project assist countries in developing a systematic analysis of the appropriate use of their total tropical forest resources, with the goal of developing a national program for sustainable forestry?	Yes
e. Environmental impact statements: Will funds be made available in accordance with provisions of FAA Section 117(c) and applicable A.I.D. regulations requiring an environmental impact statement for activities significantly affecting the environment?	Yes
14. **Energy** (FY 1991 Appropriations Act Sec. 533(c)): If assistance relates to energy, will such assistance focus on: (a) end-use energy efficiency, least-cost energy planning, and renewable energy efficiency, and (b) the key countries where assistance would have the greatest impact on reducing emissions from greenhouse gases?	Such assistance could be awarded via NGO sub-grants. If an NGO proposal relates to energy, these criteria will be examined by the Technical Advisory Committee at the time of grant award.
15. **Sub-Saharan Africa Assistance** (FY 1991 Appropriations Act Sec. 562, adding a new FAA chapter 10 (FAA Sec. 496)): If assistance will come from the Sub-Saharan Africa DA account, is it: (a) to be used to help the poor majority in Sub-Saharan Africa through a process of long-term development and economic growth that is equitable, participatory, environmentally sustainable, and self-reliant; (b) to be used to promote sustained economic growth, encourage private sector development, promote individual initiatives, and help to reduce the role of central governments in areas more appropriate for the private sector; (c) to be provided in a manner that	(a) Yes (b) Yes (c) Yes (d) Yes (e) Yes (f) Yes

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takes into account, during the planning process, the local-level perspectives of the rural and urban poor, including women, through close consultation with African, United States and other PVOs that have demonstrated effectiveness in the promotion of local grassroots activities on behalf of long-term development in Sub-Saharan Africa; (d) to be implemented in a manner that requires local people, including women, to be closely consulted and involved, if the assistance has a local focus; (e) being used primarily to promote reform of critical sectoral economic policies, or to support the critical sector priorities of agricultural production and natural resources, health, voluntary family planning services, education, and income generating opportunities; and (f) to be provided in a manner that, if policy reforms are to be effected, contains provisions to protect vulnerable groups and the environment from possible negative consequences of the reforms?

16. **Debt-for-Nature Exchange** (FAA Sec. 463): If project will finance a debt-for-nature exchange, describe how the exchange will support protection of: (a) the world's oceans and atmosphere, (b) animal and plan species, and (c) parks and reserves; or describe how the exchange will promote: (d) natural resource management, (e) local conservation programs, (f) conservation training programs, (g) public commitment to conservation, (h) land and ecosystem management, and (i) regenerative approaches in farming, forestry, fishing, and watershed management.

This program will not involve debt-for-nature.

17. **Deobligation/Reobligation** (FY 1991 Appropriations Act Sec. 515): If deob/reob authority is sought to be exercised in the provision of DA assistance, are the funds being obligated for the same general purpose, and for countries within the same region as originally obligated, and have the House and Senate Appropriations Committees been properly notified?

N/A

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18. **Loans**

a. Repayment capacity (FAA Sec. 122(b)): Information and conclusion on capacity of the country to repay the loan at a reasonable rate of interest.	N/A
b. Long-range plans (FAA Sec. 122(b)): Does the activity give reasonable promise of assisting long-range plans and programs designed to develop economic resources and increase productive capacities?	N/A
c. Interest rate (FAA Sec. 122(b)): If development loan is repayable in dollars, is interest rate at least 2 percent per annum during a grace period which is not to exceed ten years, and at least 3 percent per annum thereafter?	N/A
d. Exports to United States (FAA Sec. 620(d)): If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20 percent of the enterprise's annual production during the life of the loan, or has the requirement to enter into such an agreement been waived by the President because of a national security interest?	N/A
19. **Development Objectives** (FAA Secs. 102(a), 111, 113, 281(a)): Extent to which activity will: (1) effectively involve the poor in development, by expanding access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (2) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (3) support the self-help efforts of developing countries; (4) promote the participation of women in the	(1) Program will enable local communities to control resource use. The creation of a Community Resource Management Agreement (CRMA) will be a participatory exercise and will promote resource-conserving technologies at the village-level. These technologies and appropriate development strategies will be designed and implemented through NGOs and the GOTG, with particular

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national economies of developing countries and the improvement of women's status; and (5) utilize and encourage regional cooperation by developing countries?

attention to their impact on the natural resource base of the community.
(2) Emphasis will be on cooperation at the village-level. The goal is to return control over natural resources to the local level and thus enable them to be used more efficiently.
Assisting rural poor to increase natural resource-based production and incomes will lead to a higher standard of living which is sustainable.
(3) Technical assistance and training will be provided to improve indigenous capacity.
(4) Women will be targeted as participants in community resource management and training. Women are particularly dependent on natural resource-based activities for survival, thus they will directly benefit from the ANR Program.
(5) N/A

20. **Agriculture, Rural Development and Nutrition, and Agricultural Research** (FAA Secs. 103 and 103A):

a. Rural poor and small farmers: If assistance is being made available for agriculture, rural development or nutrition, describe extent to which activity is specifically designed to increase productivity and income of rural poor; or if assistance is being made available for agricultural research, has account been taken of the needs of small

The goal of the ANR Program is to increase rural incomes by increasing production of crop, livestock and forest products on a sustainable basis. The mechanism for achieving this goal is

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farmers, and extensive use of field testing to adapt basic research to local conditions shall be made.	sustainable use of the natural resources base.
b. Nutrition: Describe extent to which assistance is used in coordination with efforts carried out under FAA Section 104 (Population and Health) to help improve nutrition of the people of developing countries through encouragement of increased production of crops with greater nutritional value; improvement of planning, research, and education with respect to nutrition, particularly with reference to improvement and expanded use of indigenously produced foodstuffs; and the undertaking of pilot or demonstration programs, explicitly addressing the problem of malnutrition of poor and vulnerable people.	The ANR Program will increase production of a variety of crop, livestock, and forest products. This will effect an increase in rural incomes as well as in available food stocks. As such, the ANR Program can be expected to positively impact on the nutritional status of people of the Gambia
c. Food security: Describe extent to which capacity increases national food security by improving food policies and management and by strengthening national food reserves, with particular concern for the needs of the poor, through measures encouraging domestic production, building national food reserves, expanding available storage facilities, reducing post harvest food losses, and improving food distribution.	Increasing production of crop, livestock, and forest products in rural areas will increase national food security. Localized control of natural resources will lessen market inefficiencies associated with common property resources. The focus on maintaining and strengthening the natural resource base will ensure that improvements in food security are long-term.
21. **Population and Health** (FAA Secs. 104(b) and (c)): If assistance is being made available for population or health activities, describe extent to which activity emphasizes low-cost, integrated delivery systems for health, nutrition and family planning for the poorest people, with particular attention to the needs of mothers and young children, using paramedical and auxiliary medical personnel, clinics and health posts,	N/A

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commercial distribution systems, and other modes of community outreach.

22. **Education and Human Resources Development** (FAA Sec. 105): If assistance is being made for education, public administration, or human resource development, describe (a) extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, and strengthens management capability of institutions enabling the poor to participate in development; and (b) extent to which assistance provides advanced education and training of people of developing countries in such disciplines as are required for planning and implementation of public and private development activities.

(a) Support to the Peace Corps environmental education program will strengthen non-formal education as agriculture and forestry volunteers will incorporate environmental education into their work. Formal education will be made more relevant as Peace Corps education volunteers will bring country-specific environmental education into schools. Management capability and institutions will be strengthened through HCN training, in U.S., third-country, and in-country. (b) Assistance provides for 4 B.S. degrees as well as short-term training, third-country training and in-country training. Specific training disciplines will be developed in response to explicit demand, but anticipated priority areas might include participatory rural appraisal techniques, simple technical packages, watershed management and environmental education.

23. **Energy, Private Voluntary Organizations, and Selected Development Activities** (FAA Sec. 106): If assistance is being made available for energy, private voluntary organizations, and selected development problems, describe extent to which activity is:	Such assistance may be awarded via NGO sub-grants. If NGOs proposals entail such assistance, these criteria will be examined by the Technical Advisory Committee at the time of grant award. NGO activities financed by the ANR Project will focus on prompting longer-term, community-based resource management and conservation.
a. concerned with data collection and analysis, the training of skilled personnel, research on and development of suitable energy sources, and pilot projects to test new methods of energy production; and facilitative of research on and development and use of small-scale, decentralized, renewable energy sources for rural areas, emphasizing development of energy resources which are environmentally acceptable and require minimum capital investment;	N/A
b. concerned with technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations.	N/A
c. research into, and evaluation of, economic development processes and techniques;	N/A
d. reconstruction after natural or manmade disaster and programs of disaster preparedness;	N/A
e. for special development problems, and to enable proper utilization of infrastructure and related projects funded with earlier U.S. assistance;	N/A

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f. for urban development, especially small, labor-intensive enterprises, marketing systems for small producers, and financial or other institutions to help urban poor participate in economic and social development. N/A

C. CRITERIA APPLICABLE TO ECONOMIC SUPPORT FUNDS ONLY

1. **Economic and Political Stability** (FAA Sec. 531(a)): Will this assistance promote economic and political stability? To the maximum extent feasible, is this assistance consistent with the policy directions, purposes, and programs of part I of the FAA? N/A

2. **Military Purposes** (FAA Sec. 531(e)): Will this assistance be used for military or paramilitary purposes? N/A

3. **Commodity Grants/Separate Accounts** (FAA Sec. 609): If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made? (For FY 1991, this provision is superseded by the separate account requirements of FY 1991 Appropriations Act Sec. 575(a), see Sec. 575(a)(5).) N/A

4. **Generation and Use of Local Currencies** (FAA Sec. 531(d)): Will ESF funds made available for commodity import programs or other program assistance be used to generate local currencies? If so, will at least 50 percent of such local currencies be available to support activities consistent with the objectives of FAA Sections 103 through 106? (For FY 1991, this provision is superseded by the separate account requirements of FY 1991 Appropriations Act Sec. 575(a), see Sec. 575(a)(5).) N/A

5. **Cash Transfer Requirements** (FY 1991 Appropriations Act, Title II, under heading "Economic Support Fund," and Sec. 575(b)): If assistance is in the form of a cash transfer: N/A

a. **Separate account:** Are all such cash payments to be maintained by the country in a separate account and not to be commingled with any other funds? N/A

b. **Local currencies:** Will all local currencies that may be generated with funds provided as a cash transfer to such a country also be deposited in a special account, and has A.I.D. entered into an agreement with that government setting forth the amount of the local currencies to be generated, the terms and conditions under which they are to be used, and the responsibilities of A.I.D. and that government to monitor and account for deposits and disbursements? N/A

c. **U.S. Government use of local currencies:** Will all such local currencies also be used in accordance with FAA Section 609, which requires such local currencies to be made available to the U.S. as the U.S. determines necessary for the requirements of the U.S. Government, and which requires the remainder to be used for programs agreed to by the U.S. Government to carry out the purposes for which new funds authorized by the FAA would themselves be available? N/A

d. **Congressional notice:** Has Congress received prior notification providing in detail how the funds will be used, including the U.S. interests that will be served by the assistance, and, as appropriate, the economic policy reforms that will be promoted by the cash transfer assistance? N/A

DRAFTER:GC/LP:EHonnold:5/17/91:2169J

ANNEX W: LIST OF USAID STAFF, DESIGN TEAM MEMBERS AND PERSONS CONTACTED

ANNEX W: LIST OF USAID STAFF, DESIGN TEAM MEMBERS AND PERSONS CONTACTED

USAID Personnel

Bonnie Pounds	A.I.D. Representative
Don Drga	Agricultural Development Officer
Philip DeCosse	PSC Agricultural Economist
Omar Jallow	PSC Agricultural Officer
Mary Lew	Controller
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Sarjo Touray	Minister
Ebrima Manneh	Permanent Secretary
Bolong Sonko	Former Permanent Secretary
Sulayman Samba	Deputy Permanent Secretary
N'dey-Isatou N'jie	Principle Environment Officer
Bob Roberts	UNSO Advisor
Fansainy Dumbuya	Principle Planner
N'Dey Jobarteh	Environment Officer
Isatou Gaye	Environment Officer
Faton Jallow	Senior Assistant Secretary

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Abdoulie Danso	Agroforester - Department of Forestry
Dr. Almamy Camara	Director, Department of Wildlife

Ministry of Agriculture

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Yaya Jallow	Permanent Secretary
Ousman Jammeh	Deputy Permanent Secretary, Projects
Mustapha Darboe	Former Deputy Permanent Secretary, Projects
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Dr. Badou Loum	Assistant Director, Department of Livestock Services
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Bakary B. Darboe	Minister
Alieu N'gum	Permanent Secretary

Ministry of Local Government and Lands

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International Trypanotolerance Center

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Jeff Saussier	Deputy Director, Action AID
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