PAAD	AGENCY FOR INTERNATIONAL DEVELOPMENT PROGRAM ASSISTANCE APPROVAL DOCUMENT	1. PAAD NO. 2. COUNTRY: Niger 3. CATEGORY: Cash Transfer 4. DATE: June 1992
5. TO: George T. Eaton Director, USAID/Niger		6. GTN CHANGE NO.: N/A 7. GTN INCREASE: None
8. FROM: Richard A. Macken Design and Evaluation Officer		TO BE TAKEN FROM:
9. APPROVAL REQUESTED FOR COMMITMENT OF: $ 2,000,000		10. APPROPRIATION:

11. TYPE FUNDING	12. LOCAL CURRENCY ARRANGEMENT	13. ESTIMATED DELIVERY PERIOD	14. TRANSACTION ELIGIBILITY DATE
☐ LOAN ☒ GRANT	☒ INFORMAL ☐ FORMAL ☐ NONE	6/93 - 12/97	Upon PAAD Approval

15. COMMODITY TO BE FINANCED

Food, medical supplies, agricultural inputs, blankets, tents, fuel and animal feed and fodder.

16. RECOMMENDED SOURCE	17. ESTIMATED SOURCE
U.S. only:	U.S.:
Limited F.W.:	Industrialized Countries:
Free World: $2,000,000 (CODE 935)	Local: $2,000,000
Cash:	Other:

18. SUMMARY DESCRIPTION

The Disaster Preparedness and Mitigation Program is a sector grant with a discrete project component (683-0279). The purpose of the program is to strengthen Nigerien capabilities to assess and effectively respond to disasters.

Subject to the availability of funds and the mutual agreement of the Parties to the terms and conditions set forth herein, it is planned that cash transfers will be made to the Government of Niger (GON) in two tranches of $5 million each for a total of $10 million. Each of the cash transfers is tied to conditions precedent that demonstrate progress in implementation of institutional and policy reforms.

19. CLEARANCES	DATE
CONT:HLightfoot	9/29/92
EXO: MCollins	9/28/92
ANP: GTaylor	28/IX/92
GDO:HSoos	8/15/92
RLA:MAlexander (draft)	8/24/92
RCO:CJudge (draft)	

20. ACTION: ☒ APPROVED ☐ DISAPPROVED

Director, USAID/Niger — TITLE

9/29/92 — DATE

CLASSIFICATION:

ACTION MEMORANDUM FOR THE DIRECTOR

Date: September 28, 1992

From: Gregg Baker, Acting Program Officer

Subject: Authorization of Disaster Preparedness and Mitigation Program, 683-0271 and 683-0279

I. Problem: Your approval is requested for a grant of $18,000,000 from the Development Fund for Africa Account to Niger for the Disaster Preparedness and Mitigation (DPM) Program, 683-0271 and 683-0279. $4,500,000 will be obligated in FY 1992.

II. Discussion:

A. Description of the Program: The purpose of the program is to strengthen Nigerien capabilities to assess and effectively respond to disasters. The DPM Program is designed to improve the disaster early warning and response capabilities of the Government of Niger (GON), while reinforcing local capabilities. Of the life-of-program funding of $18,000,000, a non-project assistance (NPA) component of $10,000,000 will be a cash transfer generating a GON counterpart contribution to finance the program's Emergency Fund, which will make money available for disaster early warning, preparedness, mitigation and relief, as well as provide resources for a trust fund to support other local costs. A project assistance component of $8,000,000 will finance technical assistance, program coordination (for USAID management and the Disaster Relief Unit ((DRU)) transition), commodities, training, studies, support to the Directorate of Crop Protection, local costs including pilot mitigation activities, evaluations and audits.

The DPM will help the GON lessen the impact of disasters by strengthening the government's early warning system; developing a disaster preparedness capacity at the local and national levels; and improving the planning, coordination, implementation and monitoring of disaster mitigation and relief activities. Donor confidence will be boosted by improving the reliability of the data on which the GON bases its estimates of emergency needs and developing a reliable system for monitoring and documenting the use of disaster commodity assistance.

A.I.D.'s long-term goal in Niger is to promote sustainable market-based economic growth while emphasizing locally managed resources and reduced population growth. Disasters have a strong negative impact on development and economic growth. Every famine or medical emergency sets back development activities. If progress is to be made through conventional development programs, it is critical to address disasters effectively and to mitigate their causes and effects. Effective response to disasters requires early and accurate needs assessments through early warning and appropriate and timely relief and mitigation efforts.

The program's main beneficiaries will be the rural poor. An improved early warning and response capability should have a direct impact on thousands of Nigeriens who annually face food shortages. Through better preparedness and more appropriate relief and mitigation mechanisms, the DPM will enable people to be better equipped to meet their subsistence needs and to retain sufficient assets to avoid destitution. The program will also help the rural poor overcome the adverse effects of epidemics, fires and floods.

Project outputs will include accountability systems for funds and commodities, integrated early warning capability, preparedness measures, integrated response capability, a legal definition and framework for disasters, monitoring and evaluation systems, an effectively administered Emergency Fund, timely and effective delivery of mitigation and relief actions, pilot mitigation activities and trained GON disaster personnel.

B. Financial Summary: The first year of program funding will consist of an FY 1992 obligation of $4,500,000 ($2,000,000 for an NPA cash transfer and $2,500,000 for PA project support). The total A.I.D. contribution to the life-of-program funding is $18,000,000 ($10,000,000 in NPA and $8,000,000 in PA). The GON will contribute the equivalent of $10,000,000 in local currency generations, as well as the in-kind costs of salaries and office operations.

The overall breakdown of the A.I.D. program funding is as follows:

	Initial Obligation ($000)	LOP ($000)
Nonproject Assistance		
Cash Transfer	2,000	10,000
Project Assistance		
Technical Assistance	1,250	3,600
Program Coordination (USAID/DRU)	505	900
Commodities	250	800
Training	100	400
Studies	155	500
Support to the Directorate of Crop Protection	100	500
Other Local Costs	100	800
Evaluations and Audits	--	400
Contingency	40	100
TOTAL	4,500	18,000

C. Committee Action and Findings: USAID review of the PAAD confirmed the technical soundness and socioeconomic acceptability of the program.

The Initial Environmental Examination recommends categorical exclusion for technical assistance, training, studies, evaluations, audits and cash-for-work and food-for-work activities. A negative determination is recommended for the Emergency Fund, commodity purchases and contingencies. A negative determination with conditionality is recommended for all activities having a bearing on preventive insect control or crop protection purposes. The conditionality applied in this case is that any pesticide use during the transition year of the project will occur in connection with a buy-in to the Africa Emergency Locust Grasshopper Assistance (AELGA) Project (698-0517). The AELGA Project has provided for a Regulation 16-mandated Programmatic Environmental Assessment (PEA) for grasshopper and locust control, and a Niger-specific Supplemental Environmental Assessment (SEA), previously prepared and approved. During the transition year, the DPM Project Manager will determine with the GON which components of the SEA will be incorporated into the DPM program implementation, and how elements may be coordinated with related initiatives of the GON and other donors.

The Mission review committee concluded that the financial control mechanisms the program proposes to put in place for the Emergency Fund contain adequate systems for tracking and safeguarding the NPA funds.

The Implementation Plan contained in the PAAD has been examined by the Mission review committee, which concluded that the plan was realistic and established a reasonable time frame for carrying out the program.

All legislative action required for program implementation is completed. Accordingly, a certification has been prepared and signed stating that the requirements of Section 611(a)(2) of the FAA have been met.

D. Special Concerns: For management of the program, USAID will enter into an AID-direct contract with an institutional contractor selected through full and open competition. At USAID, there will be a full-time expatriate PSC serving as Mission Disaster Relief Coordinator and Disaster Preparedness and Mitigation Program Manager.

Local cost financing, in accordance with the procedures laid down in HB 1B, Chapter 18, is authorized for the program in order to ensure efficient and timely implementation of program activities.

USAID/Niger fully supports the spirit and intent of the Gray Amendment legislation. To that end, small business concerns, as well as other eligible disadvantaged entities, will be encouraged to participate to the fullest extent possible in program implementation. The Mission will encourage the participation of disadvantaged enterprises as either prime contractors or subcontractors. All contracts in excess of $500,000 will contain a provision requiring that no less than 10 percent of the dollar value of the contract must be subcontracted to disadvantaged enterprises.

The Associate Administrator for Operations has approved the use of a cash transfer for $2,000,000 for this program, in accordance with the guidance presented in State 37533 (February 6, 1992) and State 190945 (June 15, 1992).

The USAID officer responsible for the DPM Program will be Michael Sullivan, GDO. The Niger desk officer in AFR/SWA will be responsible for coordinating program actions in AID/W.

III. Waivers: No special waivers are required for the program. The Mission will closely track changes in the Buy-American regulations to ensure that proper justifications are provided for the procurement of non-U.S. goods and services.

IV. Justification to Congress: The Congressional Notification for this program expired on August 22, 1992, without objection.

V. Authority: You have the authority under Section 4.A of Delegation of Authority No. 551 to authorize a project that does not exceed $20,000,000 over the approved life of project and does not have a life of project in excess of 10 years, provided that no significant policy issues are involved or that no waivers are required that exceed your authority. No such policy issues or waivers are involved here.

VI. Recommendation: That you sign the PAAD face sheet authorizing $2,000,000 of non-project assistance out of a projected total cash transfer of $10,000,000 for the Disaster Preparedness and Mitigation Program and that you sign the attached Project Paper face sheet and Project Authorization approving life-of-project funding of $8,000,000 for the project component of the program.

George T. Eaton
Director
USAID/Niger

Date: 9/27/92

USAID Ambassade Américaine NIAMEY

Attachment: DPM PAAD

Clearances for the Disaster Preparedness and Mitigation PAAD:

H. Soos, GDO		8/18/92
C. Kelly, DRU		17/VIII/92
C. Sadler, A/PROG	(draft)	
H. Lightfoot, CONT		9/29/92
M. Collins, EXO	mc 9/25	9/25
G. Taylor, ANP		25/IX/92
G. Baker, PROG/ECON		9/29/92

I. CONDITIONS AND COVENANTS

A. Conditions Precedent to Disbursement of First Tranche of Non-Project Assistance Funds for the Emergency Fund.

The disbursement of nonproject assistance is predicated on the enactment of a series of institutional and policy reforms that support the implementation of the activities funded under the project assistance component and the Emergency Fund.

Prior to the initial disbursement of funds to the Emergency Fund, the Grantee shall furnish to USAID, in form and substance satisfactory to USAID, evidence that the Grantee has:

(1) Established a Special Grantee Account (the principal account of the Emergency Fund), at a banking institution in Niamey approved by both parties, for the deposit of local currency equivalent to the amount of U.S. dollar disbursements for each cash transfer increment.

(2) Established a Special Grantee Account (the disaster operations account of the Emergency Fund), at a banking institution in Niamey approved by both parties, for the disbursement of funds under the program.

(3) Established a structure within the Prime Minister's Cabinet to coordinate and manage disaster response that includes preparedness, mitigation and relief, parallel and complementary to the current structure for early warning.

(4) Designated an office and an individual authorized to represent the Grantee regarding the management of the Emergency Fund, including responsibility for coordinating GON positions and recommendations with respect to the use of the fund, and provided the name and specimen signature of the authorized person.

(5) Provided legal texts at the ministerial level for the creation of three Sectoral Work Groups for early warning (Agricultural and Livestock Pest Monitoring, Crop Production Forecast and Stock Estimates, and Livestock Market). This will complete the enactment of legal texts for the six Sectoral Work Groups which currently provide information for the National Early Warning System.

(6) Established a plan for institutionalizing an integrated capability in early warning and disaster response for food-related and other emergencies under the Prime Minister's Cabinet. The plan shall describe the coordinating institution within the Cabinet of the Prime Minister, as well as the role of GON entities at the national, departmental and arrondissement levels. It shall include provisions for the monitoring of disaster relief and mitigation activities. It

shall describe the anticipated roles of private entities and community organizations.

(7) Provided a draft legal text designating a GON Food Aid Coordinator, and establishing the attributes and responsibilities of this Coordinator in the context of the plan described in Condition (6) above.

(8) Provided a document establishing the legal basis for the declaration of emergencies of various types, including food shortages, epidemics, floods, fires, and other disasters. The evidence shall specify the office or offices to which authority for the declaration of emergencies is attributed and the powers and limitations of the office(s) or entity(ies) regarding the use of material resources, both public and private, including the reallocation of budgetary resources.

(9) Provided a draft legal specifying that in the event that the Cabinet of the Prime Minister ceases to exist constitutionally or operationally, the functions of early warning, disaster preparedness and response, the declaration of emergencies, the Food Aid Coordinator and the Emergency Fund, will be attached to a level of government of equivalent authority.

B. Conditions Precedent to Disbursement of Second Tranche of Nonproject Assistance Funds for the Emergency Fund

Prior to the second disbursement of funds to the Emergency Fund, the Grantee shall furnish to USAID, in form and substance satisfactory to USAID, evidence that the Grantee has:

(1) Enacted legal texts, as necessary, to provide a juridical base for the plan proposed in Section B.6 above, for institutionalizing a GON capability for disaster preparedness and response for food-related and other emergencies under the Prime Minister's Cabinet. This will include early warning and disaster response structures at the national, departmental and arrondissement levels.

(2) Provided written procedures to regional authorities for authorizing and encouraging cooperation and mutual assistance at the departmental and arrondissement level with neighboring countries on coordinated management of early warning and response, as appropriate, for disasters, including droughts, pests and epidemics. The cooperation and mutual assistance encouraged under this condition shall be through existing bilateral and multilateral agreements, as appropriate, such as the Niger-Nigeria Commission, Lake Chad Basin Commission, West Africa Economic Commission and CILSS.

(3) Established and promulgated guidance to regional and national offices on the use of assessment criteria and

response thresholds for emergency declarations, as the basis for providing assistance for food shortages, floods, fires and epidemics.

(4) Enacted official guidelines and a juridical basis for GON procurements essential for the provision of emergency assistance, including waivers and appropriate abbreviated procedures for contracting and procurement of actions destined to respond to emergencies.

(5) Enacted official guidelines to ensure the rapid mobilization of resources available through regular development programs which would facilitate responding to emergencies (e.g. health supplies or vaccination support).

(6) Not discontinued, reversed or otherwise impeded any action it has taken in satisfaction of any previous condition precedent under this program.

C. Covenants

In addition to policy and institutional reforms, the Program Agreement will contain the following covenants.

(1) Continuance of Actions Taken by Grantee in Satisfaction of Conditions Precedent. The Grantee shall covenant that it will not in any way discontinue, reverse or otherwise impede any action that it has taken in satisfaction of any condition precedent to the Program Agreement, except as mutually agreed to in writing by the Parties.

(2) Commitment to investigate and prosecute allegations of abuse, misuse and non-fulfillment of contractual obligations. The Grantee shall covenant that it will investigate and prosecute, to the full extent of the applicable law, all allegations of abuse, misuse and nonfulfillment of contractual obligations under the Emergency Fund and regarding project-funded logistical and commodity support.

(3) Assignment of Personnel to Program. The Grantee shall covenant that qualified staff will be assigned to administrative units at the national, departmental and arrondissement levels, vested with the authority to plan and implement disaster relief and mitigation activities.

(4) Assignment of Personnel Trained under this Program. The Grantee shall covenant that all GON personnel who receive external training under this program, including technical service agents, will remain in positions directly relevant to the requirements of this program for at least two years after

the training; and that GON personnel who receive in-country training will remain in their position or in an equivalent or relevant position for a minimum of six months after the training.

II. Uses of Local Currency Generations

The cash transfer will generate counterpart funds that will be used to finance non-recurrent costs related to the development of disaster preparedness capability, the carrying out of disaster mitigation interventions and the implementation of emergency relief activities. Costs may be incurred for commodity purchases and support services.

Among the commodities that might be purchased are food, medical supplies, agricultural inputs, blankets, tents, fuel, and animal feed and fodder. Counterpart funds may be used to finance contracts with private sector transporters and with national and international nongovernmental organizations for specific mitigation- and relief-related services. A limited amount of funding will be available on a selective basis to pay fuel and travel allowances for GON personnel in support of mitigation and relief activities, including information gathering, monitoring and implementation. Eight percent of the total amount of the cash transfer will be placed in a USAID/Niger DPM Program Trust Fund to help defray costs related to program management and monitoring and for general Mission support.

III. Disbursements

For each of the two tranches, cash transfer dollars will be transferred to Niamey and converted into counterpart funds once the conditions precedent have been met. The counterpart funds will be kept in the principal account of the Emergency Fund at a local bank acceptable to both parties. Funds will be transferred from this account to the Emergency Fund's disaster operations account, from which all disbursements under the program will be made. The program will endeavor to maintain a balance of $500,000 in the disaster operations account. Disbursements from the disaster operations account will take place on an as-needed basis depending on the number and magnitude of the early warning and response activities that need to be undertaken.

I have reviewed the proposed methods of implementation and financing for the Disaster Preparedness and Mitigation Program, and find them to be appropriate. Where necessary, adequate provisions have been made for detailed assessments of financial management capacities. I therefore recommend that you approve this proposed project paper.

Harry M. Lightfoot
Mission Controller
USAID/Niger

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: A (A = Add, C = Change, D = Delete) — Amendment Number: — DOCUMENT CODE: 3

2. COUNTRY/ENTITY: NIGER

3. PROJECT NUMBER: 683-0279

4. BUREAU/OFFICE: AFR / 06

5. PROJECT TITLE (maximum 40 characters): Disaster Preparedness & Mitigation

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM DD YY: 12 31 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 92 B. FX	C. L/C	D. Total	LIFE OF PROJECT E. FX	F. L/C	G. Total
AID Appropriated Total	2,500		2,500	8,000		8,000
(Grant)	(2,500)	( )	(2,500)	(8,000)	( )	(8,000)
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S. 1.						
U.S. 2.						
Host Country		2,000			10,000	10,000
Other Donor(s)						
TOTALS	2,500	2,000	2,500	8,000	10,000	18,000

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE	D. OBLIGATIONS TO DATE 1. Grant	2. Loans	E. AMOUNT APPROVED THIS ACTION 1. Grant	2. Loan	F. LIFE OF PROJECT 1. Grant	2. Loan
(1) DFA			0		2,500		8,000	
(2)								
(3)								
(4)								
TOTALS			0		2,500		8,000	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each) — 11. SECONDARY PURPOSE COD

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code							
B. Amount							

13. PROJECT PURPOSE (maximum 480 characters)

To strengthen Nigerien capabilities to assess and effectively respond to disasters.

14. SCHEDULED EVALUATIONS: Interim MM YY: 10 95 — Final MM YY: 10 97

15. SOURCE/ORIGIN OF GOODS AND SERVICES: ☐ 000 ☐ 941 ☐ Local ☒ Other (Specify) 935

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

17. APPROVED BY — Signature: George T. Eaton — Title: Director, USAID/Niger — Date Signed: 9/5/92

Ambassade d'Amérique

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

PROJECT AUTHORIZATION

COUNTRY: Republic of Niger

PROJECT NAME: Disaster Preparedness and Mitigation

PROJECT NUMBER: 683-0279

1. Pursuant to Section 496 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Niger Disaster Preparedness and Mitigation Project ("the Project"), involving planned obligations not to exceed $8,000,000 over a period of five years and four months 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 the foreign exchange and local currency costs of the Project. The planned life of the Project is five years and four months from the date of initial obligation.

2. The Project consists of assistance in support of the policy reforms made under the Disaster Preparedness and Mitigation Non-Project Assistance Program. It will provide Technical Assistance in establishing disaster-related procedures and activities, commodities, training, logistical support and studies relevant to the program purpose and will finance replicable pilot disaster mitigation activities and support to the Crop Protection Service. In addition, the Project will finance USAID/Niger's management of the Project and Program. A.I.D. funds under the Project shall not be disbursed directly to any agency of the cooperating country unless the Director, USAID/Niger first finds that such agency has satisfactory internal controls and accounting systems.

3. The Project Agreement, which may be negotiated and executed by the officer(s) 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.

4. a. Source and Origin of Commodities, Nationality of Services.

Except as A.I.D. may otherwise agree in writing, commodities financed under the Project shall have their source and origin in countries included in A.I.D. Geographic Code 935 and suppliers of goods and services, except for ocean shipping, shall have as their place of nationality countries included in A.I.D. Geographic Code 935. Ocean shipping financed by A.I.D. under the Project shall, except as A.I.D. may otherwise agree in writing, be only on flag vessels of the United States.

b. Conditions Precedent to Initial Disbursement.

Prior to initial disbursement or to issuance of commitment documents under the Grant, the cooperating country shall furnish, in form and substance satisfactory to A.I.D.:

1. A statement designating the Grantee's authorized representative(s) and a specimen signature for each of them;

2. A legal opinion by counsel acceptable to A.I.D. that the Agreement has been duly authorized on behalf of the Grantee and is a valid and binding obligation of the Grantee.

George T. Eato
Director, USAID/Niger

Date: 9/29/92

Drafted by R. Macken, DEO

Clearances:

H. Soos, GDO		5/18/92
C. Kelly, DRU	draft	
C. Sadler, A/PROG	(draft)	
H. Lightfoot, CONT		9/29/92
M. Collins, EXO		9/28
G. Taylor, ANP		25/IX/92
G. Baker, PROG/ECON		9/26/92

DISASTER PREPAREDNESS AND MITIGATION PROGRAM

TABLE OF CONTENTS

VIII. ANNEXES

ACRONYMS AND ABBREVIATIONS

AELGA	Africa Emergency Locust/Grasshopper Assistance
AFR	AID/W Africa Bureau
AGRHYMET	Agricultural/Hydrological/Meteorological Program
ASDG I	Agriculture Sector Development Grant I
BCEAO	Banque Centrale des Etats de l'Afrique de l'Ouest
BEN	Bureau Exécutif National
CFW	Cash for Work
CILSS	Comité Inter-Etat pour la Lutte Contre la Sécheresse au Sahel
CMS	Conseil Militaire Suprême
CNSAP	Comité National du Système d'Alerte Précoce
COP	Chief of Party
CRSSA	Cellule Régionale de Suivi de la Situation Alimentaire, Sanitaire, Nutritionelle
CSA	Cellule de Surveillance et d'Alerte
CSON	Conseil Supérieur d'Orientation Nationale
CSRSSA	Cellule Sous-Régionale de Suivi de la Situation Alimentaire, Sanitaire, Nutritionelle
CWS	Church World Service
CY	Calendar Year
DCP	Directorate of Crop Protection
DIAPER	Permanent Diagnostic
DPM	Disaster Preparedness and Mitigation
DRU	Disaster Relief Unit
ECPR	Executive Committee for Project Review
EDF	European Development Fund
FAO	Food and Agricultural Organization
FCFA	Franc de la Communauté Financière Africaine
FED	European Development Fund
FEWS	Famine Early Warning System
FFP	Food for Peace
FFR	FEWS Field Representative
FFW	Food for Work
FHA	Food and Humanitarian Assistance
FRG	Federal Republic of Germany
FSN	Foreign Service National
FSNPSC	Foreign Service National Personal Services Contractor
FSOC	Food Security Operations Cable
FSOG	Food Security Operations Group
FY	Fiscal Year
GDO	General Development Office
GON	Government of Niger
GTI	Groupe de Travail Interdisciplinaire

GTS	Groupes de Travail Sectoriel
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
LMIS	Livestock Market Information System
LSGA	Limited Scope Grant Agreement
LWR	Lutheran World Relief
MNSD	Mouvement National pour la Société de Développement
mt	Metric Ton
NGO	Nongovernmental Organization
NIB	Nigeria International Bank
NIGETIP	Agence Nigérienne de Travaux d'Intérêt Public pour l'Emploi
NPA	Nonproject Assistance
NRM	Natural Resources Management
OCLALAV	West African Communal Locust and Pest Bird Control Organization
OFDA	Office of Foreign Disaster Assistance
OPVN	Office des Produits Vivriers du Niger
OYB	Operating Year Budget
PA	Project Assistance
PACD	Project Assistance Completion Date
PIR	Project Implementation Report
PPN-RDA	Parti Progressiste Nigérien - Rassemblement Démocratique Africain
PS	Permanent Secretariat
PSAC	Cellule de Prévention, Secours and Atténuation des Catastrophes
PSC	Personal Services Contractor
PVO	Private Voluntary Organization
REDSO	Regional Economic Development Services Office
RFFPO	Regional Food for Peace Office
SAP	Système d'Alerte Précoce
SIM	Système d'Information sur les Marchés Cerealiers
SNIS	National Health Information System
TA	Technical Assistance
UNDP	United Nations Development Program
UNICEF	United Nations International Children's Emergency Fund
USG	United States Government
USPSC	United States Personal Services Contractor
WB	World Bank
WFP	World Food Program

I. EXECUTIVE SUMMARY

A. Introduction

The Disaster Preparedness and Mitigation Program (DPM) is an $18 million, five year, four month activity designed to improve the disaster early warning and response capabilities of the Government of Niger (GON), while reinforcing local capabilities. The program is financed under the Development Fund for Africa and has both nonproject and project components. The $10 million in nonproject assistance (NPA) will consist of a cash transfer, to be released in two tranches of $5 million each, to fund the program's Emergency Fund, which will make money available for disaster early warning, preparedness, mitigation and relief. The $8 million in project funding will finance technical assistance, USAID support, the Disaster Relief Unit (DRU) transition, commodities, training, studies, support to the Directorate of Crop Protection (DCP), pilot mitigation activities, evaluations and audits. The planned life of program is from August 1992 to December 1997.

The program goal is to promote greater well-being among Nigeriens through minimizing the negative impact of disasters on economic development. The program purpose is to strengthen Nigerien capabilities to assess and effectively respond to disasters. The anticipated end-of-project status indicators are as follows: 1) a vertically integrated early warning and response system will have been institutionalized within the GON, including a specific decentralized capability, 2) appropriate mitigation activities will have been identified for varying situations, 3) donor coordination in early warning and response will have improved, and 4) the Emergency Fund will have been found effective in responding to smaller-scale emergencies.

B. The Problem

Niger is characterized by a number of environmental, ecological, demographic and economic features that produce a high degree of vulnerability to disasters. These include natural disasters such as drought, floods, and insect and rodent infestations; medical emergencies such as cholera, measles and meningitis epidemics; and man-made emergencies such as fires. Food-related emergencies constitute the predominant type of disaster in terms of the number of people affected and the value of the assistance provided. While some emergencies affect a large contiguous area and population, many are limited in scope. Owing to the diverse micro-climates that characterize Niger's ecological zones, localized famines occur even in years when for the nation as a whole agricultural production is sufficient. Hence pockets of food insecurity may exist within areas of food sufficiency or surplus. Floods and fires typically affect only sections of a village, or several villages in the same area.

Given its limited financial resources, the GON frequently calls upon bilateral and multilateral donors for disaster assistance. In

the area of food aid, institutional and policy constraints have limited the effectiveness of this type of assistance. To start with, imported food is frequently brought in when national or regional surpluses are available because donors are often limited in their ability to purchase food locally. This reliance by donors on imported food discourages local agricultural production and limits the donors' ability to respond flexibly to smaller-scale emergencies. Moreover, donors are hesitant to send requested food aid because they lack confidence in the data on which the GON bases its need for emergency assistance and because no reliable system is in place for monitoring and documenting the end-use of commodities.

During the course of its long involvement with providing disaster assistance in Niger, USAID has come to recognize just how limited its present ability is for addressing emergencies. Mechanisms have been developed for responding to major food and medical disasters by calling upon the Office of Foreign Disaster Assistance (OFDA) and other AID/W resources. This type of disaster assistance, however, is often slow in arriving, imposes a heavy management burden on the Mission and lacks any impact beyond the saving of lives. Existing mechanisms do not allow USAID to respond quickly and effectively to smaller-scale emergencies.

USAID's emergency response capability is currently managed by its Disaster Relief Unit (DRU), which coordinates early warning, emergency assistance and locust/grasshopper monitoring within the Mission. The present DRU structure, while affording the Mission an in-country emergency response and coordination capability, extracts a high cost in terms of USAID management time, demands on Mission procurement and financial management staff, and the disruption of ongoing project and program support activities. In recognition of the need for greater efficiency in providing disaster assistance and for a more flexible emergency response mechanism, USAID has designed the DPM Program, a development activity funded with DFA resources to strengthen Nigerien capabilities to assess and effectively respond to disasters.

The rationale for providing development assistance to address disaster preparedness and mitigation in a country as disaster-prone as Niger is based on a number of factors. The overriding reason is the negative impact disasters have on development and economic growth. A famine or medical emergency inevitably sets back development activities. If progress is to be made through conventional development programs, it is critical to address disasters effectively and to mitigate their causes and effects. Effective response to disasters requires early and accurate assessments through early warning. It also requires a better understanding of the dynamics of the coping mechanisms that victims rely on for survival, so that assistance can be targeted more effectively. Finally, it requires greater flexibility and more options for providing emergency assistance.

The DPM will help the Government of Niger lessen the impact of disasters by strengthening the GON's early warning system; developing a disaster preparedness capacity at the local and national levels; and improving the planning, coordination, implementation and monitoring of disaster mitigation and relief activities. Donor confidence will be boosted by improving the reliability of the data on which the GON bases its estimates of emergency needs and developing a reliable system for monitoring and documenting the use of disaster commodity assistance.

C. Program Components

The DPM's three components focus on institutional development, the Emergency Fund and project assistance (PA). The program purpose and objectives will be achieved through a combination of policy and institutional reforms, the establishment and management of an Emergency Fund, and short- and long-term technical assistance.

1. Institutional Development

The principal objectives of the institutional development component of the DPM Program are to establish a GON organizational basis for integrating early warning and disaster response and to develop decentralized GON capabilities in early warning, emergency preparedness, and relief and mitigation activities. The GON organizational base for the program is the National Early Warning System (Système d'Alerte Précoce, SAP), created in 1989 as a permanent government structure attached directly to the Prime Minister's Cabinet. According to the legal text that established it, the SAP is to detect and predict crisis situations (early warning) in the agricultural, socioeconomic, health and nutritional sectors and to determine necessary actions (response) to preclude and/or mitigate crisis situations. The SAP has developed a nascent, though improving, early warning capability but little has been done to create a response capacity. Disaster response is usually ad hoc, generally entailing requests for emergency assistance from donor nations.

The SAP currently has neither the personnel, financial nor technical resources to perform a response function. Neither does any other administrative entity of the GON. The DPM will assist the GON in fulfilling the SAP's mandate by developing a disaster response capability that is broader in orientation than merely providing food aid and that includes preparedness and mitigation as well as relief.

Adding this response capability to the SAP could be done at a reasonable cost as only limited additional personnel -- three civil servants already working elsewhere within the GON -- would be required and some logistic, communication and data management resources could be shared with existing SAP units. The existing

SAP structure, from the arrondissement level to the Prime Minister's Cabinet, would remain intact. What would change is that the Permanent Secretariat, the SAP's executive unit, which coordinates the various components of the system and at present is mostly concerned with early warning, would have two units: one encompassing the existing early warning function, to be called the Early Warning Unit (Cellule de Surveillance et d'Alerte, CSA), and the other developing the response function, to be called the Preparedness, Relief and Mitigation Unit (Cellule de Prévention, Secours, et Attenuation des Catastrophes (PSAC).

The CSA will be responsible for the data collection, analysis and communication functions of the early warning system. The PSAC will be a principal user of CSA data and will be charged with responsibility for disaster preparedness, mitigation and relief. Both the CSA and the PSAC will rely on the decentralized SAP structures for information and the implementation of disaster assistance interventions.

Besides building capabilities at the national level, the DPM Program will stress the development of decentralized early warning and response capabilities at the arrondissement level. Starting initially with a few arrondissements and then expanding to others, the DPM will support training, the development of a locally based early warning system, vulnerability mapping and the selection of relief and mitigation options. To the greatest extent possible, local communities, both men and women, will be involved in monitoring their own situations regarding food security, health and nutrition.

The DPM will support the development of a consistent vulnerability methodology using localized socio-economic, climatic, natural resource, nutritional, health and production data collected at the arrondissement level. At the same time, starting in four arrondissements, a disaster preparedness capability will be developed, including inventories of equipment and listings of services and supplies needed in emergencies of different types.

To the extent possible, the DPM Program will promote mitigation interventions over direct relief, when the former are technically feasible and adequate implementation means are available. Mitigation activities seek to reduce the severity of impending emergencies by intervening prior to the point where coping mechanisms are no longer effective or recovery is improbable. Mitigation activities may be implemented through a food- or cash-for-work mechanism, the distribution of free or subsidized commodities or the provision of credit.

A key measure of the DPM Program's success will be the effective coordination and implementation of disaster relief. The PSAC will coordinate both information and resource flows through the SAP committees at the department and arrondissement levels, providing

the GON with a single coherent system for disaster management. Disaster relief operations will be coordinated by the PSAC in conjunction with the relevant GON entities. Implementing agencies will include humanitarian organizations, private sector firms and GON agencies.

In other areas, the program will seek to make sure that the legal texts and procedures for declaring and responding to a disaster are clearly defined and that a rational system is developed for accounting for funds and commodities and monitoring performance. More credible requests for assistance and better handling of relief efforts on the part of the GON should increase the donors' willingness to participate in emergency response activities.

2. Emergency Fund

A nonproject assistance cash transfer to the GON, contingent upon satisfaction of institutional and policy changes defined in the conditions precedent of the program grant agreement, will be used to establish an Emergency Fund that will finance disaster mitigation and relief activities. The Emergency Fund will be initiated with USAID money but is conceived of as a multi-donor fund and is structured to allow contributions from other parties. It is unclear, however, whether other donors will participate; the success of DPM, further, is not contingent on other donor inputs. During the life of the DPM Program, the fund will not be dependent on contributions from other donors though outlays for emergency interventions will result in the reduction and eventual depletion of the fund's assets.

The objectives of the fund include 1) the provision of money to finance smaller-scale mitigation and relief activities throughout the life of the program, 2) the establishment of a flexible funding mechanism that can respond in a timely manner to immediate disaster needs, and 3) the creation of a credible funding system where donors will deposit money to support GON emergency assistance efforts.

To help conserve the fund's resources, requests for support will be required to verify that other sources are insufficient, unavailable or cannot be mobilized in time to meet the required need. It is anticipated that other donors and the GON will at least maintain their existing levels of financial support for emergency operations. Additional U.S. assistance will be requested in the event of larger-scale disasters.

The Emergency Fund will be used to finance non-recurrent costs related to the development of disaster preparedness capability, disaster mitigation interventions and emergency relief activities. In those areas, expenses may be incurred for commodity purchases or support. Purchases and associated costs of commodities include such items as local foodstuffs, vaccines, animal feed and fodder,

and fuel for emergency pest control operations. The financing of contracts with private sector transporters and with national and international nongovernmental organizations (NGOs) for specific relief- or mitigation-related services are also priority uses of the fund. A limited amount of money will be available selectively to pay fuel and travel allowances for GON personnel in support of mitigation and relief activities, including information gathering, monitoring and implementation responsibilities.

Priority will be given to mitigation activities, but it is recognized that a substantial part of the fund's resources will be used to meet smaller-scale food emergencies. In the case of larger-scale emergencies, the Emergency Fund would be reserved to meet essential expenditures linked to disaster relief operations -- not to the purchase of food. Such expenditures could include the handling, transport and documentation of food assistance. Logistical support, fuel and vehicle rentals are often needed to make effective use of donor contributions. Mechanisms exist through the OFDA and comparable institutions in other donor countries to mobilize resources for the importation or purchase of large quantities of emergency food commodities.

All requests for funding from the Emergency Fund will require the submission of a formal proposal. A simple and pertinent funding request form will be designed early in the project; the goal will be to keep the funding request process as simple and fair as possible. Requests for funding will go directly to the PSAC for review. After review and verification of the problem, the PSAC will make an action recommendation to the Permanent Secretary of the SAP as to whether the proposal should be funded or not and recommend a possible source of funds. Funding sources may include: 1) emergency assistance provided by another donor, 2) an ongoing project already working in the area, and 3) the Emergency Fund. In the case of the last-mentioned option, the Permanent Secretary will consult with the chief of party (COP) of the long-term technical assistance (TA) team on disbursement.

The Emergency Fund will have two accounts -- a principal account into which the cash transfer tranches will be deposited and held, and a disaster operations account from which all funds will be disbursed. Funds will be transferred from the principal account to the disaster operations account, as needed, with the disaster operations account striving to keep a balance at all times of the local currency equivalent of $500,000 in order to be able to respond quickly to smaller-scale mitigation and relief activities. The Director of the Prime Minister's Cabinet and the Director of USAID/Niger will oversee the use of the two accounts.

3. Project Assistance

The DPM's project assistance element is designed to assist in the achievement of the program purpose. This component, which will be

funded directly from the Development Fund for Africa, includes technical assistance, USAID support, the DRU transition, commodities, training, studies, logistical support, pilot mitigation activities, support for the Directorate of Crop Protection (DCP), evaluations and audits.

The long-term technical assistance team will consist of four expatriate specialists -- a financial management and administration specialist, who will also serve as COP; a disaster operations specialist; an early warning and data collection and analysis specialist; and a program development specialist, whose job will include training and setting up monitoring systems. USAID support will consist of a U.S. personal services contractor (USPSC) project manager and a foreign service national personal services contractor (FSNPSC) project assistant. Support for the Mission's existing Disaster Relief Unit will continue until December 1993, when its operational functions are assumed by the DPM's long-term technical assistance team.

The DPM Program will finance in-country, regional and overseas short-term training on such topics as data collection, processing and utilization; rapid rural appraisal; emergency planning; program development; operations management; and monitoring and evaluation. The DPM will also fund a series of studies that will facilitate program implementation. Among the possible topics that may be pursued are the impact of disaster assistance, the assessment of production and consumption, cost-benefit and sustainability assessments of land reclamation using self-help and cash-for-work (CFW) and food-for-work (FFW) models, milling rates, household vulnerability in the pastoral zone, and an analysis of the Directorate of Crop Protection.

It is anticipated that the DPM will carry out a total of six pilot mitigation activities over the life of the program. These activities will be selected to represent particular types of mitigation interventions, implementation mechanisms and/or vulnerability situations. The purpose of these pilot activities will be to determine the relative effectiveness of different types of mitigation interventions in responding to various situations and conditions. Possible pilot mitigation activities that might be undertaken include the provision of subsidized cotton seed or fortified crop residue to herders' associations and pastoral groups, the carrying out of small-scale FFW projects based on village priorities, the use of CFW or FFW to maintain farm-to-market roads, the establishment of village-based seed loan programs, the digging and deepening of wells, and the conservation of soil and water.

D. Impact

The program is expected to have an impact in a variety of ways -- on human welfare, the development of human capital, the economy and

the GON. The impact of an improved early warning, preparedness and response capability should have a direct impact on thousands of men, women and children who annually face food shortages in Niger. Through better preparedness and more appropriate response, the DPM will enable people to be better equipped to meet their subsistence needs. The potential impact of the DPM should be seen not just in terms of saving the lives of the most vulnerable, the poorest of the poor, but in helping the broader rural population retain sufficient assets to avoid destitution.

Through effective early warning and targeted interventions, much suffering can be averted or diluted and food and economic security can be assured for more Nigeriens. In cases where relief is necessary, the DPM will have a direct impact through the more timely, efficient and equitable delivery of aid. One factor of considerable importance should be the increased involvement of the "victim" in disaster prevention and response. Involving local men and women in indicator development; disaster monitoring; and identifying, implementing and evaluating emergency interventions will allow them to increase their active participation and decision-making in matters that directly affect their lives. The DPM seeks to build upon and strengthen local structures and positive coping strategies, not to ignore or replace them.

The DPM's mitigation activities are not long-term development efforts, but short-term interventions such as land regeneration, well digging or employment generation that might be expected to have an impact on human capital development. As mitigation activities reduce income risk, household decision-makers may be influenced to try new technologies, reduce their seasonal migrations and make other positive production and consumption changes. The various forms of training offered under the DPM Program will build skills among GON personnel, including support and secretarial staff.

Economically, the program's disaster preparedness and mitigation efforts should help prevent extreme situations from developing where asset stripping results in the disposal of productive resources and forced migration. Dislocation only shifts the crisis to another location and creates economic and socio-political problems at the point of destination. By building a national capability to better predict, mitigate and respond to disasters, the economic costs to affected families and the nation should be reduced.

As a result of the DPM, the GON will move closer to its goal of detecting, predicting and effectively responding to disaster situations. The SAP's mandate will be completed with the addition of a response function that integrates early warning information in order to respond in a more timely and effective manner to emergencies. A major impact should be the broadening of the type and orientation of disaster response undertaken in Niger, including

the promotion of mitigation over relief.

The DPM Program will contribute to the GON's decentralization effort that is already under way. The impact should be most visible at the arrondissement level with the movement of increased funding and decision-making power to the most local level of disaster planning and assistance. The DPM's emphasis on decentralization and accountability should promote greater transparency and responsibility so that emergency aid will have a greater chance of reaching the people for whom it is intended. At the same time, the improved vertical integration of the SAP is expected to produce more effective and efficient services to those people needing disaster assistance.

II. BACKGROUND

A. Sectoral Framework

1. Overview

Although disasters and disaster response are not treated as a distinct sector in the conventional economic development sense, a social and political system's ability to anticipate and respond effectively to the array of crises and catastrophes that we refer to communally as disasters has profound economic consequences. By definition, disasters are events that exceed local response capabilities, that place coping systems under duress, that impose serious and potentially crippling costs on individuals, communities, and on the local, regional, or national economy. Yet disasters are ultimately relative; they posit a relational identity between the severity of the event -- numbers of lives threatened, homes and businesses destroyed, geographic area affected -- and the capacity to respond to the event and its consequences at the level of organization at which the event occurs. It is not simply the cubic meters per second of flow that makes a flood into a disaster, but a community's (in)ability to contain the effects of the flow. Similarly, crop failure alone need not result in famine if a community or society has mechanisms in place to assure access to life sustaining levels of food for everyone.

Nor are all populations within the geographic area of a declared disaster equally affected by its negative consequences. Individuals, family units, socio-economic and ethnic groups may have very different resource endowments and coping capacities. While drought induced famine forces many producers to liquidate their productive assets, e.g. livestock and tools, others within the community may be able to take advantage of the downward price spiral to buy these assets and strengthen their relative economic position. Medical crises, too, have a differential impact on people depending on factors such as age, nutritional status, housing conditions, and gender. This variability in vulnerability to hunger, floods, ill health, contagion, and other forces that may result in catastrophe must be taken into consideration in both the identification of the magnitude and nature of the disaster and in the determination of response interventions to be deployed.

In the area of disaster response, a number of useful distinctions are made that help define some of the parameters of the sector. Disasters are referred to as incipient or immediate; their causes may have evolved over a substantial period of time, as for long-onset disasters such as drought induced famine, or have erupted with little forewarning as in the case of short onset emergencies such as floods and fires. The danger of incipient crises may be anticipated, evaluated and reduced with effective early warning. The losses incurred due to a short onset catastrophe may be reduced through preparedness and rapid response.

Finally, disaster response may take the form of emergency relief or disaster mitigation. In the former, assistance is provided to victims; blankets distributed to those whose homes have been destroyed by flooding, free food distributed to the destitute, emergency medical attention provided to populations caught in the midst of an epidemic. In the case of disaster mitigation, on the other hand, the objective is to prevent, to the maximum extent possible, the chain of consequences that transforms affected populations into victims of disaster.

2. The Character of Crisis

Niger is characterized by a number of environmental, ecological, demographic, and socio-economic factors that come together to produce a high degree of vulnerability to natural disasters such as floods, drought, and insect and rodent infestation; to medical emergencies such as cholera, measles and meningitis epidemics; and to human-abetted (man-made) catastrophes such as fires (especially brush fires), famine, and more recently, the threat of food insecurity due to civil unrest. Low and highly variable rainfall, desert encroachment, land degradation, recurring locust and grasshopper invasions, and high pre- and post-harvest cereal losses due to rodents and insects are among the environmental constraints that affect agro-pastoral production and hence the level of food security of Niger's rural and urban populations. The fragility of many of the country's ecological zones, combined with population pressure, has pushed some areas beyond their effective carrying capacity under present resource utilization and production technologies and into a marginal status where both human and animal populations are more susceptible to environmental threats.

Although some emergencies affect a large area and population in the country, many disasters are dispersed, striking a number of villages in one canton, or parts of several arrondissements scattered throughout the country. Floods and fires typically affect only parts of a village, or a number of villages in the same area. The diversity of ecological micro-zones also creates a situation where localities within the same territory may have widely varying production conditions and hence pockets of food insecurity may emerge within an area of food sufficiency or even production surplus.

This appears to be the case following the 1991 harvest. Despite reports of a generally good harvest and a surplus on the national food balance sheet, the GON felt obliged to request 28,800 metric tons of emergency food assistance. The GON assessment placed the number of cereal deficit villages at over 1,700, with a vulnerable population (over 75% deficit) of almost 728,000 inhabitants. FEWS/Niger estimated that approximately 586,000 persons were at moderate or high vulnerability due to food shortages. Although questions have been raised regarding the GON's assessment methodology, it is accepted that serious food security problems exist in

localities scattered across the country.

Food insecurity is closely linked to poverty. Increasingly, individuals and households have become vulnerable due to a lack of access to foodstuffs rather than because of their absolute non-availability. There are regions within Niger that are structurally deficit in food production but that are not considered to be highly vulnerable to hunger because of the presence of other sources of income with which foodstuffs are purchased. In other areas, some villages may be at great risk due to poor production in successive years, while at the aggregate level the district in which the villages are situated may have a global surplus of cereals.

National and regional economic conditions have substantially reduced the effectiveness of labor migration and petty commerce as income generating strategies that fit into the traditional repertoire of coping mechanisms used by households. Banditry and armed rebellion in northern zones of the country have seriously disrupted marketing patterns, tourism, and livestock and human movements, adding further insecurity while limiting options typically used to bolster incomes and access to food, medical care, and other needs. The economic crisis is also reflected at the level of national and local budgetary resources and hence the capacity of public authorities to intervene to reduce the threat of food insecurity and to respond to other catastrophes.

3. Identification and Assessment of Disaster Situations

In a broad sense, the identification and assessment of disaster situations takes place through the recognition of indicators (arising from raw data or analysis) of an impending disaster or acknowledgement of the actual consequences of a disaster. In the former, disaster warning is possible, permitting interventions to mitigate or prevent the negative consequences of the potential disaster. In the latter case, only reaction to the consequences of the disaster is feasible, with relief assistance the only realistic option.

The devastating droughts and resulting famine and massive loss of herds in the late 1960s to early 1970s, and again in the early 1980s, pushed international organizations and national governments across the Sahel to seek to develop the capability to detect the threat of drought before it caused massive social dislocation, suffering and economic loss. The establishment of drought/famine early warning capacity in the Sahel has sometimes followed and frequently paralleled the development of other efforts to develop better and more timely data and analysis on conditions in the Sahel.

With famine early warning, as with other data collection and analysis systems, the belief is that better information will lead to a better understanding of actual conditions and better decision-

making about policy and practical interventions. While these systems have widely varying performance in terms of quality, regularity and availability, their existence has permitted the development of a functional capacity in early warning across the Sahel.

In Niger there are four data collection and analysis systems which deal directly with potential disasters: the Meteorological Service, the locust/grasshopper control network, the Ministry of Health's National Health Information System (SNIS), and the Nigerien Early Warning System, known by its acronym SAP (Système d'Alerte Précoce). The first three are sectoral systems, with the SAP a multi-sectoral system, drawing on the previous three and several other data collection/analysis systems in Niger.

The Meteorological Service (Met Service) collects synoptic weather data daily from six stations and also receives reports on daily weather (rainfall, temperature, etc.) from over 50 other stations across Niger on a 10 day basis. Through the use of the synoptic data, satellite images and weather radar (at Niamey), the Met Service can provide alerts of severe local weather in much of southern Niger. The Met Service is also the National AGRHYMET counterpart and chairs a multidisciplinary work group as a member of the SAP. Through these latter two functions, the Met Service produces dekadal (10 day) reports on rainfall and meteorological conditions during the growing season (May to October). The dekadal reports are concise and provide a good "snap-shot" of regional agro-pastoral conditions within Niger.

The locust/grasshopper early warning function is internal to the Directorate of Crop Protection (DCP) and relies heavily on field reports from agriculture agents. Use of remotely sensed "greenness maps" helps direct ground monitoring efforts. A systematic monitoring system based on pest modeling, weather, remote sensing and field monitoring has not yet been implemented due to model limitations and data demands. The current system is heavily based on subjective data and provides no more than two weeks effective lead time. As a result, the system appears to be reactive (i.e., reporting conditions as they develop rather than forecasting) and provides the DCP with little time to mount effective control operations.

The National Health Information System (SNIS) collects quarterly health facility service data on coverage, utilization and morbidity, as well as maternal and child health data, including nutritional status, vaccination services and family planning usage. The data are aggregated at the arrondissement level and forwarded to the department and national levels. Recent reporting (1991) has been complete, but information frequently takes three to four months to reach the Ministry of Health. Data are used to produce simple tables, graphs and maps to provide the basis for planning and for general use by the GON health sector at all levels,

international health organizations and donors.

An independent surveillance system exists to monitor measles, meningitis and cholera. Data on these diseases are reported on a weekly basis to the central level by telephone. Recently, the quality of reporting has improved, but it remains variable. Delays in reporting of up to a month are not uncommon.

Reporting by both the SNIS and the surveillance system are limited to the population covered by health facilities, currently estimated at 32 percent nationwide. The delays in reporting and limited analytical capabilities at the Ministry of Health are serious constraints that are currently being addressed.

The SAP, whose mandate includes disaster early warning and response management, was formally created in 1989 and has been operational for approximately two years as part of the Prime Minister's Office. The SAP is essentially a central service dependent on secondary data provided by a range of technical ministries. Since its inception, the SAP has formally established a national system using a decentralized structure, including the department and arrondissement levels (again using data provided by technical ministries), for the assessment and monitoring of food security conditions. As a multi-sectoral data user, the SAP is particularly vulnerable to bad data from contributing data collection systems. In addition, the quality and scope of analysis performed by the SAP, and most of the contributing data collection systems, is reduced by the lack of a clear methodology for disaster early warning (particularly food security problems) and an unwillingness to confront and resolve basic data collection and analysis inaccuracies.

The data collection and early warning systems in Niger operate with a strongly centralized approach. Analysis is usually done by central ministry offices, with district and regional personnel serving simply as data collection and transmission agents. Data collection systems seem to be conceived, operationalized, and financed independently of each other. There has not been any significant attempt to either coordinate data collection exercises and systems or to streamline demands and procedures required of field staff charged with collection.

The existence of a national early warning system and contributory data collection/analysis systems provides Niger the basis for effective warning and mitigation response for the commonly expected disasters (e.g., drought/food shortages, floods, crop pests, fires, health problems). At the same time, the systems are too data intensive, lack the systematic use of thresholds and trigger indicators, function on the basis of incomplete monitoring methodologies and procedurally exclude most victims' inputs into the warning assessment process. Most of these problems can be resolved with investments in two areas: the development of

simplified, threshold-based and object-oriented warning/assessment methodologies and, through decentralization and the involvement of victims, to provide a closer relationship between the warning indicators and the actual problem.

4. Response Structures

Like other regions of the world, much of disaster response and mitigation in Niger is actually accomplished by the victims themselves. Given the nature of the disaster and the asset levels of the affected populations, many of these local responses allow victims to positively cope with the situation. Such positive responses should neither be discouraged nor considered contrary to the development interests of the country. However, other certain negative responses that people are forced to resort to in times of destitution are costly to society and the economy such as divestment of assets, degradation of land resources and population dislocations that put stress on other areas of the country.

GON interventions take place when either the impact of a disaster is dramatic, localized and accessible (as in the case of a fire or flood affecting a town), or when there are generally accepted precursors of regional scale events which will have an impact on a large number of people over a large area (poor rainfall leading to poor crop production and food shortages). There is no indication that the GON has pursued either a policy of continually citing impending disaster as a way to increase foreign assistance or a policy of downplaying disaster impact for internal or external political reasons.

The most frequent disaster-related government interventions are to address food shortages (rainfall- and/or pest-induced) through food distribution managed by the local government structure and to control crop pest problems through the pesticide applications managed by the Ministry of Agriculture, Directorate of Crop Protection. In addition, not infrequent epidemics among humans are handled through the Ministry of Health and less frequent events, such as flooding or fire in urban areas are handled, on an as yet ad hoc basis, by local government. Considering the recent cultural, political and financial aspects of life in Niger, the GON has sustained a high level of interest in addressing food shortages, crop pest problems and other potential disasters. This has involved necessary dependence on external assistance but minimal attention to the monitoring/reporting of assistance. Drawing on experiences in other countries and on investigations of responses to food shortages in Niger, it appears that most government (and donor-financed) interventions come after the immediate impact of the disaster has occurred and may have little effect on the victim's overall condition and ability to recover. These problems with the government response can be attributed to five factors:

(1) The early warning process is neither sufficiently credible nor timely enough to mobilize interventions;

(2) The scope and impact of potential disasters is not well understood or geographically defined;

(3) The government lacks resources to mount even minimal disaster response efforts and relies on often slow foreign assistance;

(4) Responsibilities and authorities within the government with respect to disaster response are not clear or functional; and

(5) When response is provided by the government, it often does not correspond to the perceived needs of the victim.

Improvements in the early warning system have been discussed above. The improvement process will necessarily involve a better identification and assessment of the scope and location of disasters in Niger and the participation of victims in the assessment process. Thus, improvements in the early warning area should lead to actions that improve points one, two and five noted above.

Addressing points three and four requires improvements in the way that the GON manages disaster assistance. These improvements begin with establishing a legal basis for disaster management leading to a full delegation of responsibilities for implementing disaster response efforts based on more efficient early warning to appropriate ministries and levels in the government.

It is unlikely that the GON's financial situation will improve sufficiently in the near term to permit self-financing of any major disaster response effort. Nonetheless, visible improvements in the management of disaster assistance should lead to more timely response to the government's requests for assistance and more cost-effective and appropriate interventions to mitigate potential disasters.

B. Macro-Economic Environment

Traditional agriculture is the base of Niger's economy. Ninety-one percent of the labor force earns all or part of its income in the rural sector. An enclave uranium mining sector contributes to government revenues but otherwise has weak linkages with the rest of the economy. The service sector, including trade and transportation but excluding government, is the second largest sector after agriculture, employing about seven percent of the labor force. Manufacturing is negligible, employing two percent of the population. Annual changes in the level of economic activity

are explained more by rainfall patterns than any other single factor.

Agriculture's share of gross domestic product remained virtually unchanged between 1984-89, with an average of about 36 percent. Livestock production accounts for nearly forty percent of total rural production in normal rainfall years. Recorded increases in national cereals output over the past decade have been due largely to increases in cultivated area rather than from technical improvements. Even in normal years, Niger is not self-sufficient in food production, and by estimations, has not been so since the 1970s. Shortfalls are made up by food aid and commercial food imports both of which have increased over the past three years. A large percentage of imports from Nigeria are not recorded, but are estimated to be between 80,000 and 160,000 tons a year.

Agro-pastoral products made up about 17 percent of export earnings in 1990. The major export market for rural products is Nigeria, which purchases substantial quantities of livestock and cowpeas. During 1984-89, cropped area for exports increased, particularly for cowpeas and onions. Onions are exported to the Ivory Coast and other coastal markets. Despite the concentration of employment in the rural area, its contribution to export receipts is dwarfed by uranium export revenues which totalled over eighty percent of export revenues in 1990.

1. Performance Statistics

The recent performance of the Nigerien economy can be explained in part by patterns established during the 1980s. During 1982-89, Niger's gross domestic product fluctuated widely, falling by 17 percent in 1984 during a drought and rising by 8 percent in 1985. The economy grew by an average annual rate of 0.7 percent over this period. Real GDP growth averaged 2.9 percent from 1985-89. Despite this modest recovery, real GDP in 1989 was about 8 percent lower than its average level in 1981-82. The high population growth rate (estimated at 3.4 percent per annum) caused per capita GDP to fall at an annual average rate of 6.7 percent from 1982-89. In 1989, GDP declined from the previous year by 3.5 percent and in 1990 by 4.5 percent. Per capita GDP declined from 1988 to 1991 from $315 to $292.

The structure of the economy changed from 1984-89. The share of the modern sector in total GDP declined in this period, owing to a deterioration in terms of trade, as well as poor performance of the industrial sector. Developments in mining and industry also adversely affected other parts of the modern sector, including electricity and water, commerce, transportation and construction. As a result, the share of the informal sector in total GDP, which had averaged 66.4 percent in 1984-86, rose to an average of 70 percent in 1988-89, while that of the modern sector declined.

2. Structural Adjustment

Since 1983 the GON has been attempting to meet the terms of a series of structural adjustment programs supported by IMF arrangements, two IDA adjustment credits and cofinancing from the donor community. Structural adjustment is meant to address the imbalances resulting from the collapse of the uranium market in the early 1980s following a period of overexpansion of the public sector. Some of the major policy reforms called for have been restraint in civil service growth, reduction of parastatals, liberalization of prices/trade, deregulation, tax and education reforms. Under adjustment, progress has been achieved primarily in the areas of public enterprise reform (a dozen parastatals have been privatized) and price/trade liberalization (price controls have been relaxed, tariffs and customs duties have been reduced). However, a combination of slippage in the implementation of broad fiscal reforms coupled with further declines in the country's ability to compete in both the world uranium market and regional product markets negate the favorable impact of such measures.

From late 1990 until the end of the National Conference in early November 1991, political change became the overwhelming preoccupation of the Nigerien Government and people, and came to crowd out concerns about adjustment and pressing economic issues such as measures of fiscal adjustment. The National Conference served as a forum to redefine the political system, negotiate a social and economic agenda, and elect a transitional government to govern for 15 months until national elections take place in late 1992. After the end of the National Conference in November, the transitional government began to take stock of the fiscal, social and economic costs of continuing failure to adjust. Fiscal measures addressed in previous adjustment programs had stalled or been reversed, thus contributing to a deep fiscal crisis. The wage bill had, in fact, risen steadily by an average of 7% per year from 1987 through 1991 while tax revenues dropped by an annual average of 5% for the same period. The resulting structural problem posed by wages now representing 54% of current expenditures continues to threaten key expenditures on materials and supplies in priority sectors which have dropped to a minimum.

Much remains to be done to improve the economy, including a major overhaul of the fiscal regime and the education system, in addition to further progress on the civil service and parastatal issues. Lack of progress over the last two years has led the World Bank and IMF to declare Niger as being "out of compliance", and has resulted in the loss of scheduled assistance tranches amounting to millions of dollars. The World Bank and IMF assistance programs have both expired, the IMF ESAF program ending in December 1991. Defiance of structural adjustment was voiced at the National Conference in the fall of 1991 but, due to some new high-level appointments in the GON and the issuance by the new Ministry of Finance and Plan of a 'Programme de Redressement', negotiations continue with the IMF.

Ongoing project assistance by the World Bank also continues. The future of new low-interest structural adjustment program loans by the World Bank and the IMF are uncertain. The IMF has suggested that bilateral donors are likely to be the only assistance source for the financially strapped GON until further progress is made.

3. Government Financing

Government fiscal strategists have been preoccupied with several problems: a large external debt, few domestic resources and poor resource management. The government relies heavily upon foreign funds to meet its financial needs (donors supply more than 50 percent of the current budget and all of the investment budget), and on foreign technical assistance to promote increases in productivity.

Niger's annual external debt payments are $90 million or 3.4 percent of GDP. Debt service was 33 percent of exports in 1988 after rescheduling. Niger's international debt was $1.34 billion in 1989, when GDP was $2.37 billion. Such a huge debt burden relative to the nation's GDP has had a crippling effect on the economy.

The GON has undertaken measures to come to grips with its external debt. Debt service obligations reached 38 percent of government revenue and 27 percent of export earnings in 1987. As a consequence, Niger rescheduled its private debt in October 1989 and its government-to-government debt in September 1990. More recently, France forgave $158 million and the U.S. canceled all development debt of around $7.6 million. In December 1990, Niger became the first country to be approved for support from the International Development Association (IDA) Debt Reduction Facility. Niger's debt burden has been reduced substantially, but the GON continues to experience difficulty in meeting remaining debt service obligations, making no payments on past arrears in 1991, and accumulating $31 million in new external arrears. The accumulation of chronic internal and external arrears reached unsustainable proportions in 1991 with arrears representing 30% of fiscal revenues. Both medium- and short-term adjustment in Niger will require resolution of these fiscal issues in a sustainable manner.

Niger currently faces the gravest financial situation in its history as an independent nation. Multilateral financial institutions and bilateral donors are trying to address the immediate GON treasury crisis while at the same time introducing measures to stabilize the financial situation and stimulate a significant economic recovery.

4. Prospects

In terms of output, it is unlikely that 1992 will be as good a year

as 1991 for agricultural production. The contractual price of uranium is expected to fall further by 5% in 1992 and 11% in 1993 thus depressing exports further. The rate of investment, which dropped overall by 30% in 1991, may also take some time to recover as many donor projects are currently blocked because of debt service arrears or because of a lack of counterpart funds.

The prospects for Niger's economy and for the ability of the government to manage economic and social problems without donor assistance are limited. The decline of the uranium sector and the lack of improvement in the traditional agriculture sector continue to thwart economic growth. Political developments may improve prospects for the economy, but the nature of Niger's resource base and the composition of its economy constitute limits to growth.

C. Political Environment

1. History

The political evolution of Niger has been marked by five regimes, including the current transitional government. The first political party, known as the PPN-RDA (Parti Progressiste Nigérien - Rassemblement Démocratique Africain) was established in 1946. It was the liberal democratic party backing the French colonial empire. By 1956, several political parties supporting Nigerien independence from France had been established. The dominant one was the socialist party, known as the SAWABA. Both the PPN-RDA and SAWABA were vying for power in 1958 when the First Republic was proclaimed. At independence in 1960, the PPN-RDA prevailed, and their leader, Diori Hamani, became president. Shortly thereafter, most SAWABA party leaders were exiled, and Niger became a one party state.

During this first regime, which remained in power for 14 years, much social and economic progress was made. However, at the same time that parastatals, hospitals, schools and roads were being created, the country was also suffering drought and famine and the suppression of human rights.

In April 1974, environmental and political conditions precipitated an army-staged coup d'état led by General Kountche. The major justification for the coup was political corruption of the Diori government, in general, and in particular, poor management of food and other aid during the famine of the early 1970's.

The army's Military Council (Conseil Militaire Suprême, CMS), an elite officer's corps, became the highest institution in the second regime. In addition to full political and military power, the CMS also directed economic affairs. Its major policy was to develop food self-sufficiency for the entire population.

In 1975, under the guise of participatory economic development, the CMS established a consultative body called Development Advisors (Conseillers de Developpement) which consisted of representation at the national, regional, subregional, and village levels. This amounted to little more than a confirmation of decisions already made by the CMS. Nonetheless, thanks to the uranium boom of 1975-81, the CMS regime was marked by substantial infrastructure development, notably, a widespread road network and a postal and telecommunications system. Efforts to increase food security included expanding OPVN, introducing rural hydraulics and irrigation, and improving herding conditions.

This prosperous development period was also marked by total suppression of all opposition. It was not until the economic and financial difficulties of the early 1980's, however, that discontent among Nigeriens began to surface. By Kountche's death in 1987, an organization created by the government called the MNSD (Mouvement National pour la Société de Développement) was discussing a new one party system consisting of a forum for ideological discussion to which all citizens would have access.

The third regime, led by Kountche's successor, General Ali Saibou, began with the release of political prisonners and the extension of political expression to civilians. The CMS was replaced by the Superior Counsel of National Orientation (Conseil Supérieur d'Orientation Nationale, CSON) which acted as the political voice of the MNSD. The actual execution of political decisions, however, was entrusted to the National Executive Bureau (Bureau Executif National, BEN) -- the result being firm state control of socio-economic affairs.

Food self-sufficiency remained an economic priority of the Saibou regime. Efforts to decrease unemployment and out-migration focused on increasing agricultural production, including the expansion of dry season gardening.

In 1989 a new constitution was adopted to replace the 1960 constitution annulled by the 1974 coup d'etat. This constitution called for presidential and legislative elections which were held in December 1989. The elections consisted of a popular vote for a list of deputies preselected by the MNSD, which had now become the single party of the state.

The fourth regime, put into place with the election of Ali Saibou as president, immediately faced a series of popular movements and protests fueled by the emergence of democracy in Africa. In addition, student stikes in Niamey and ethnic clashes in Tchintabaraden in February and May 1990 led to civilian killings by the military. The inability of the government to handle these conflicts greatly discredited the Saibou regime. Pressure from all sectors of Nigerien society to establish a democratic state and solve the economic and social ills of the country led the president

to authorize multipartyism in November 1990.

In July 1991, a National Conference was convened consisting of 1200 delegates representing all regions and all ethnic groups of Niger. The conference's debates led to the dissolution of Ali Saibou's government and the call for elections in late 1992. It also established political institutions for the transition period from November 1991 to February 1993: 1) the Presidency, which was reduced to a protocol role, 2) the High Council (Haut Conseil de la République), charged with establishing law and supervising the Prime Minister elected by the National Conference, and 3) an executive branch consisting of a Prime Minister and 25 ministers. In addition, special commissions were created: 1) the Supreme Court, 2) the High Court of Justice to judge former political leaders, 3) the Commission of Economic, Political, Cultural, and Social Crimes to investigate citizens potentially guilty of such acts, and 4) the Superior Council for Communications to ensure equal expression for all political parties.

2. Administrative System

The administrative system in Niger is organized as a hierarchical pyramid. At the summit lies the national level (first order) administrative and political institutions, notably, the presidency and the ministries. The second order consists of seven decentralized units which represent the national administration. These units are called departments and are governed by a Prefect who serves as representative of the President. Each ministry is also represented by a Departmental Director. The third order units are administrative subdivisions of the departments, called arrondissements. They are directed by a Sub-Prefect, who is the political representative of the president and the administrative subordinate of the Prefect. Each arrondissement is broken down into cantons, and each canton contains a certain number of villages. Both of these sub-units are headed by a chief.

3. Current Context

The current political climate of Niger can be characterized as follows:

a fragile transitional coalition government expected to solve the country's economic and social problems in the face of pervasive economic and financial crises (i.e. a bankrupt government and widespread shutdowns in the formal private sector);

a proliferation of political parties, unions, and special interest groups, drawn primarily from the privileged modern sector, each demanding advantages and benefits from a government lacking the resources to respond;

a loss of governmental authority and increasing security problems, particularly with regards to banditry and ethnic rebellion in the northern half of the country; and

a widespread lethargy among civil servants due to the uncertainty of the transition and irregular salary payments.

In addition, internal politics are subject to the following external pressures:

development aid and budget support that is disbursed according to adherence to structural adjustment measures imposed by the World Bank and IMF, and/or progress towards democracy and human rights;

membership in regional and international organizations that impose certain guidelines on the formulation of internal policy; and

direct economic influence by Nigeria, which is a major determinant of external political and commercial policies.

In conclusion, the current political environment in Niger is driven by the immediate priority of the transitional government to bring about the political reforms necessary for a viable democratic system. Economic recovery will be strongly dependent upon the ability of this system to satisfy ongoing social, political, and economic demands. The situation, though gloomy, justifies the need for DPM. Without a capability to handle disasters, neither the transitional nor future government will be able to accomplish the tasks placed before it. DPM will be well placed to make a positive impact as Niger's recent governments have consistently promoted food security and the transitional government is committed to developing a national early warning and response capability.

D. USAID Experience

1. History

The U.S. Government's (USG's) first disaster assistance effort in Niger took place in 1966 in response to a drought. From 1966 to 1973 the USG provided 16,480 mt of food aid valued at $ 2.1 million for seven disasters. From 1973 to 1984, the USAID Mission managed 213,520 mt of food assistance for disasters affecting over 2 million persons, with an additional $12.7 million being spent on transport cost for food delivery. During this period the single largest relief effort was in response to the 1973 - 1974 drought, when 188,520 mt of food assistance and $12.5 million in support costs were provided over a three year period for 1.6 million people. Most assistance was provided directly to the GON for management through its internal structure with the exception of the 1974 effort, where relief and rehabilitation assistance were also

provided through PVOs (e.g., CARE, Lutheran World Relief (LWR), Church World Service).

In 1984 the rains were significantly below average, and by July it was clear that Niger would require massive food assistance to avert famine before the 1985 harvest. From December 1984 through October 1986, USAID delivered 153,000 mt of food assistance to Niger and provided $51.7 million for logistics and operations support to assist in the post-drought rehabilitation process. The food relief and rehabilitation operations were handled through a combination of GON offices (National Cereals Office, military, Ministries of Health and Interior) and PVOs (e.g., CARE, Africare, LWR, Federation of Red Cross and Red Crescent Societies).

In response to the 1984-85 famine relief effort, AID/Washington posted a FEWS Field Representative (FFR) in Niger. The FFR's initial tasks involved collecting and reporting famine-related data to AID/W for analysis and decision-making. By 1986, the FFR had become a de facto nutrition advisor to the Ministry of Health while continuing separate data collection and reporting to AID/W.

The good regional rainfall in the later 1980s resulted in an upsurge of locust/grasshopper activity in the Sahel. During previous outbreaks the West African Communal Locust and Pest Bird Control Organization (OCLALAV) was able to minimize locust/grasshopper damage. Unfortunately, weak support from member countries meant OCLALAV was almost nonfunctional by 1986, and USAID and the larger donor community became heavily involved in seasonal locust/grasshopper control beginning in 1987. The Mission's locust/grasshopper control activities included support for monitoring/control operations of the GON's crop protection system and technical and material assistance mobilized initially through OFDA and, later, the Africa Emergency Locust/Grasshopper Assistance (AELGA) Project. From 1986 to 1992, a total of $4.7 million in assistance (commodities, technical assistance and training) were provided from various USAID sources for crop protection in Niger.

Unlike previous disaster assistance efforts, the Mission followed a strategy to support immediate control needs and, at the same time, focus on improving the capacity of the Directorate of Crop Protection to respond to seasonal pest outbreaks. This approach led the Mission to program immediate assistance and basic institutional development and work with the Directorate of Crop Protection to develop annual plans covering both areas. The Mission's pest control efforts were expanded in 1989 to include actions to address environmental issues based on USAID Regulation 16-mandated Programmatic and Niger Supplemental Environmental Assessments for the AELGA Project (e.g., the clean-up and disposal of a stock of out-dated pesticides). As a result of all these factors, the AELGA project in Niger operated as a development effort, with priority given to short-term disaster response activities.

At the same time the locust/grasshopper control expanded into a multi-year, quasi-development program, the FEWS project was redesigned, and the FFR assigned as an advisor to the Mission. The Mission also decided to continue early warning development in the GON by having the FFR work with the national early warning system office 50 percent of the time and by allocating Operating Year Budget funds through a FEWS project buy-in and Limited Scope Grant Agreement to support the GON early warning operations.

During 1990-91, the Mission expanded its famine early warning assistance to the GON and was able to use the resulting data and analysis effectively to monitor conditions during and following the regionally poor harvests in 1989 and 1990. FEWS output was also used in the planning and monitoring of the provision of 15,000 mt of Title II food assistance in 1990 ($5 million) and 35,000 mt ($11.6 million) in food assistance in 1991.

With AELGA and FEWS expanding in scope and the recurrent need for food assistance, the Mission recognized it had a de facto disaster management operation which conformed neither to development program nor traditional disaster assistance criteria. While the program objectives were clear, the period for timely assistance was often less than six months, and in the case of grasshoppers, less than three weeks. Appropriate response required accurate data and rapid analysis to guide and justify immediate actions which could cost several tens of thousands of dollars. A failure to implement a response within a specific period would waste scarce resources and compromise the whole emergency effort, resulting in major emergency food requirements.

In late 1989, the Mission initiated steps to address the need for a regular disaster management system in Niger. In mid-1990, a decision was made to undertake a Project Identification Document, which was drafted in October-November 1990 and approved in AID/W in March, 1991. The Program Assistance Approval Document design began in March 1992. The objective is to put in place a formal Niger Disaster Preparedness and Mitigation Program to replace the current mixture of AELGA and FEWS projects and to rationalize the system for providing emergency assistance.

In addition to the major disaster early warning and assistance efforts that were underway during 1987-1991, the Mission also administered two small emergency response efforts. In 1988, heavy rainfall and flooding caused damage throughout Niger. The Mission purchased fuel and shelter supplies for immediate relief, conducted a national needs assessment with the GON and rehabilitated houses in the Magaria area with a $35,000 allocation from OFDA and Operating Expense funds. In 1991, the Mission provided $26,000 as emergency assistance through a grant with Médecins Sans Frontières to purchase medical supplies and support logistics costs in response to a measles/meningitis outbreak nationwide.

2. USAID Disaster Management System

Prior to 1980, USAID/Niger's disaster assistance programs were handled through a Niamey-based Regional Food for Peace Office, with inputs from other technical divisions. This Food for Peace Office handled Niger, provided support to three nearby countries -- Burkina Faso (then Upper Volta), Benin and Togo -- and was responsible for food aid operations in Niger, as well as Burkina, in the late 1960's and early 1970's. From 1980 to 1984, with the closing of the Food for Peace Office, disaster activities, principally food aid operations, were handled out of the USAID/Niger Program Office by a Foreign Service National (FSN) with occasional support from other offices, the REDSO Regional Food for Peace Office and Personal Services Contractor (PSC) food monitors, when necessary.

As the result of a 1984 OFDA-financed assessment and drought response plan, the Mission gained a Food for Peace position and created a Disaster Relief Unit (DRU) in the General Development Office, charged with managing the 1984-86 drought/famine response effort. This unit was a temporary measure to manage the substantial contracting, staffing, reporting and monitoring tasks required to implement the 1984-86 relief operation. By early 1987, most of the unit's task had been completed, and a return to the pre-1984 level of disaster management was expected.

With the possibility of significant grasshopper and locust infestations in 1987, the Mission's Agricultural Development Office was tasked with managing an OFDA-financed monitoring and control effort in Niger. This effort involved technical assistance, a helicopter for survey work, radios, and operating expenses. Unfortunately, the OFDA disaster assistance process conflicted with the Agricultural Development Office's developmental project approach, administrative and financial procedures were not well defined, and delays in implementation were experienced.

Based on lessons learned from the 1987 grasshopper and locust control operation and the need to manage an emergency food assistance operation in 1988, the Mission formally re-established DRU and centralized all disaster management responsibilities in GDO. Staffing and support for DRU were intended to be responsive to the Mission's need to plan, manage and implement disaster assistance operations.

The unit was initially composed of a Coordinator, a Technical Administrative Assistant, a Food Aid Specialist (the only FSN position), an AELGA Project Assistant and a secretary. The FEWS/Washington-financed personnel posted to the Mission (the FEWS Field Representative and the Assistant FFR) are currently part of DRU, and the staffing has recently been increased to include an additional secretary and a Program Administration Assistant. During food aid operations in 1988 and 1990, an additional Food

Operations Manager, and in 1991, two additional Food Operations Managers, were hired for short terms to assist in managing activities. Other short-term assistance has also been used to support AELGA activities. DRU is a heavy user of the Mission's Executive Office for procurement support.

DRU activities focus on monitoring potential emergency situations and providing assistance as appropriate through the AELGA and FEWS projects, emergency grants or direct procurement. Most early warning functions are accomplished through the FEWS/Washington project's personnel assigned to DRU. A Mission-wide Food Security Operations Group (FSOG) assists the FEWS personnel to produce three annual food assessments as well as monthly Food Security Operations Cables (FSOCs). In addition, the FEWS Project buy-in and Mission FEWS Limited Scope Grant Agreement with the GON permits DRU to provide assistance directly to the GON's early warning system.

The DRU structure has been found to be an effective means for early warning and implementing disaster response but at the cost of considerable direct management participation by Mission (as opposed to contract) personnel. This situation is caused by the nature of disasters in Niger which can require a substantial assistance effort within a short (less than six months) period of time. As importantly, Niger does not yet have in place a comprehensive disaster management system to which greater financial and managerial responsibilities can be transferred from the Mission's direct responsibility.

For disaster assistance to Niger, the Mission has historically relied on the Office of Foreign Disaster Assistance (OFDA) and on Food for Peace (FFP), both currently part of the office of Food and Humanitarian Assistance (FHA). In the last four years, the Mission has increasingly used three Africa Bureau-managed projects for disaster related activities in Niger: FEWS, AELGA and AGRHYMET (Sahel Water Data and Management). Mission Operating Year Budget (OYB) funds are used as buy-ins to the first two projects to finance local project activities.

OFDA is mandated to coordinate the USG response to foreign disasters, including disaster preparedness. In 1991, OFDA was reorganized in order to achieve a better balance between relief and preparedness and established a Prevention, Mitigation and Preparedness Division.

FFP administers the provisions of Public Law 480, which allows for emergency food assistance even in the absence of a disaster determination by the Mission. Niger has never had a regular USG food assistance program, but emergency food assistance represents the monetarily largest segment of USG disaster assistance to Niger since independence. On the average, emergency food assistance has been provided in six out of ten years. Recent changes in financial and logistics procedures have improved the Mission's ability to use

FFP resources effectively in response to localized and national food shortages.

FEWS was created in July 1985 to provide decision-makers with information on populations at risk of famine through the collection of agricultural, health, nutrition, demographic and economic information relevant to early warning. Phase II, which begun in June 1989 was to: 1) institutionalize early warning within USAIDs, 2) encourage the development of early warning systems within host governments, and 3) collaborate with the international community on the development of early warning methodologies. Phase II has also concentrated on the assessment of agrometeorological and socioeconomic indicators using a geographical information system approach. Currently, FEWS/Washington requires regular reporting on early warning indicators by the Mission via the monthly FSOC and three special reports: Preharvest Assessment (September), Harvest Assessment (December), and Vulnerability Assessment (May).

The AELGA project is the outgrowth of OFDA-financed locust/grasshopper control operations in the Sahel in 1986. AELGA was created in 1988 as a development project to provide Africa Bureau a basis for non-OFDA urgent grasshopper control interventions. The use of a project device permits AID to include integrated pest management as a guiding principal of grasshopper/locust control planning through the completion of an AID Regulation 16 mandated Programmatic Environmental Assessment and a Niger Supplemental Environmental Assessment. As a result AELGA includes a wide range of environmental and pesticide safety concerns in addition to the traditional pesticide application approach to locust/grasshopper control.

The AGRHYMET (Agricultural/Hydrological/Meteorological) Program was started in 1975 by the heads of state of the CILSS (Comité Inter-Etat pour la Lutte Contre la Sécheresse au Sahel) countries. Its mandate is to support increased food production in the Sahel by providing member states with timely weather and climatic data. USAID, through the Sahel Water Data and Management Project, has focused on providing computer hardware and software, technical assistance, and training to transform the data into analyses and products that can be used to identify geographical zones with potential agricultural problems. AGRHYMET provides rainfall and other data as well as satellite imagery depicting vegetation useful in early warning.

3. Funding

The Mission has used a variety of methods to fund disaster assistance operations. Primary resources have been the Disaster Assistance Authority funds provided through OFDA and the Public Law 480 resources provided via FFP. The OFDA funds have often been used for assistance directly to the affected locations, such as in response to flooding or epidemics. FFP resources have most often

been used to finance costs associated with the delivery of emergency food assistance to and within Niger, at times complemented by OFDA resources when a major food aid operation is required.

With the advent of the FEWS and AELGA options, the Mission has been able to buy into the two projects to support disaster preparedness and response activities. This approach has significantly reduced the demands on OFDA assistance and broadened the range of disaster preparedness activities undertaken by the Mission, such as institutional support for early warning and improved monitoring and operations at the Directorate of Crop Protection. The buy-in funds have also been used to finance the operation of DRU, including personnel, logistics and most operating costs, thus minimizing demands on the Mission's Operating Expenses allocation.

E. Other Donor Assistance

1. General

The greatest involvement of other donors in disasters in Niger has been in response to food shortages through the provision of food aid. There has been an increasing interest in the last 5 years in broader aspects of food security, particularly early warning and structural adjustment efforts and impacts.

Grasshopper/locust control was an area of intense donor interest during the 1988-1990 period. Interest and short and long term assistance has decreased as the locust threat (a supra-regional problem) has receded and grasshoppers were seen as an annually recurrent problem requiring more donor and GON resources than could easily be made available.

Other disaster related interventions by donors have generally focused on responding to acute health or humanitarian problems, such as epidemics or displaced populations. This assistance is often provided in an ad hoc manner, often as commodities and funds through NGOs.

Donor assistance is often late and inappropriate due to a combination of disagreements as to the extent and impact of a problem and an imprecise definition of requirements. There is also a feeling expressed by some donors that the GON does not correctly manage existing resources and has become reliant on emergency assistance to cover normal operating requirements. Finally, most donors do not have internal emergency response/assistance systems which can respond effectively to emergency requests. This can lead to untimely and inappropriate assistance even when the donor representatives agree with an assistance request.

2. Food Assistance Issues

a. Food Assistance

Historically donors' response to drought and resulting food insecurity has involved the provision of food assistance, usually as imports. Although exact data is unavailable, since independence this assistance has probably totaled over 500,000 mt (excluding program and project food assistance), with the major part provided in response to the major drought associated food shortages of the 1960s, 1970s and 1980s. No external food assistance has ever been provided in direct response to insect damage or flooding.

Aside from the USG, the major donors traditionally involved in the emergency food assistance effort have been the World Food Program (WFP), the European Development Fund (FED), France, the Federal Republic of Germany (FRG) and Japan. In response to severe drought/food shortages others donors, including Belgium, Italy, Pakistan, Libya, Algeria and Nigeria have provided food assistance. PVOs, including the Federation of Red Cross and Red Crescent Societies, CARE and SOS-Sahel have also managed food assistance provided by donor governments in response to severe food shortages. The WFP, FED, Japan and Saudi Arabia are the largest donors for non-emergency (project and program) food assistance.

The donor food assistance process involves lengthy discussions of the GON's needs assessment and is constrained by limitations in the types and timing of assistance which can be provided. Donors are looking for better assessments of needs and accountability for assistance by the GON before becoming more flexible on providing emergency assistance.

Over the past seven years considerable donor attention has focused on defining parameters for assuring that food assistance does not hinder the private sector production and marketing of cereals. Regionally these efforts have resulted in the Club du Sahel/CILSS Food Aid Charter. In Niger this attention, and related structural adjustment activities, have transformed the National Cereals Office (OPVN) from a price support/stabilization organization to a manager of the cereal security stock and food delivery agent for the GON. This transformation was accomplished through a series of agreements and actions by parties as diverse as the IMF and the FAO. The result has been the creation of a "contract" between the GON and OPVN on management and financing of internal food assistance operations. The contract (reflecting an IMF condition) provides for OPVN's management of a cereal security stock limited to 80,000 mt per year (supported primarily by a FRG project).

This cereal is intended for use in the case of a severe food shortage, similar to conditions experienced in 1984-85. According to the agreement on reorganizing OPVN, grain from the stock cannot be released unless there is a guarantee to replace in cash or kind

the tonnage withdrawn. Thus, while approximately 1/3 of the stock is sold each year to maintain the quality of the cereal in the storage, this grain will not be available for local assistance needs if donor financing is not available to cover the costs of replacement.

Several donors, including the FRG, FED and Belgians, and the GON have used the security stock for internal food assistance operations. The most successful user of the stock has been the FRG, which incidentally provides development assistance for the stock's management. Accounting and payment problems have plagued the other users, while some donors and PVOs prefer, for reasons of cost and performance, to use open market procurements to purchase cereal.

b. Food Security

Following the large scale food assistance efforts in 1984-86 and the initiation of structural reform programs circa 1985, there has been an increasing involvement of donors in the broader aspects of food security. Other donors' activities in these areas have generally focused on:

- improvements in food security through better access to data (e.g., AGRHYMET, UNDP/FAO Early Warning Project),

- policy reform (e.g., FAO Food Security Policy Project, reorganization of OPVN), and

- capital intensive assistance to improve food production (e.g., Keita and Tanout projects, irrigation infrastructure development).

In general, food security is seen as a multi-sector problem, the mastery of which requires large scale, broad impact developmental assistance. The impact of short term food insecurity in slowing the development process or limiting project impact is not always recognized by donors.

The World Bank (WB) has initiated a program policy review of short and medium term food security issues in Niger. The Bank's objective is to identify critical areas where the Bank's resources can be used to improve the GON's ability to manage short and medium term food security. The form of the Bank's interventions has not been defined, but could range from including short term food security as a component in existing or planned sector loans to a specific project to improve the GON's food security management capacities.

c. Early Warning

The difficulties faced by the GON and donors in assessing the impact of the 1984 drought and implementing the 1985-86 relief effort, particularly the lack of accurate information, led several

donors to involvement (directly or indirectly) in improving the GON's early warning capacity. Foremost of these efforts has been the FAO managed early warning project (the SAP structure financed by the UNDP). The FRG and FAO have also supported a cereal price information system (SIM, System d'Information sur les Marches Cerealiers), partly to provide data on possible cereal shortages. The USAID/Niger-supported Livestock Market Information System (LMIS) provides weekly prices of livestock in about one dozen markets throughout Niger, and provides monthly analyses of herder terms-of-trade, an important indicator of vulnerability. Regional projects, such as the CILSS/DIAPER and AGRHYMET, have also contributed to the creation or operation of data collection systems which contribute to an early warning of food shortages.

As is discussed elsewhere, the early warning and related data collection systems in place have not led to significant improvements in famine response by the GON or donors. The data collection systems established to date are generally too expensive to run without external assistance and thus are not sustainable for the near term. The FRG-SIM effort has recognized this limitation and is assessing whether the existing system can be sustained by charging for the data and analysis provided.

d. Donor Coordination

Part of the OPVN reorganization resulted in the establishment of a Donor-GON food security management structure through which food assistance needs, donations, logistics and the operation of the security stock should be coordinated. There is also a second Donor-GON food aid committee composed of all donors, established in 1989 as part of an IMF condition. This second group has never met after the initial meeting.

The OPVN Donor-GON food security management group has never really met to conduct business. The group has been somewhat superceeded in practical terms by a less formal operational grouping of major food donors (USG, FRG, France, Canada, FED) chaired by the WFP, which handles emergency assistance cooperation and coordination with the GON on an ad hoc basis.

3. Locust, Grasshoppers and Other Pests

Historically, locust control was the responsibility of OCLALAV, with that regional organization providing some support to national crop protection offices for grasshopper control. OCLALAV's predecessor was a French regional locust control program which, following independence, was slowly transformed into a Sahel regional program reliant on support from member countries and, to a lesser extent, France and the FAO.

By 1987, OCLALAV was moribund due to a lack of financing. In 1988-89 a decision was made by member countries to reorganize OCLALAV

into a regional locust/grasshopper early warning and information network with prime responsibilities for early warning and control operations being transferred to the national crop protection organizations.

Before 1987 donors were generally able to rely on OCLALAV to handle locust control and support grasshopper control operations across the Sahel. As with USAID, most donor assistance on crop protection in the pre-1987 period went to establishing the Directorate of Crop Protection (DCP, formerly the Crop Protection Service) and focusing on integrated pest management, training and infrastructure. Apart from USAID, the FRG and Canada were the most active crop protection project donors, with some involvement by the FAO and the Dutch via programs based at AGRHYMET.

With the decrease in OCLALAV's capacities in the late 1980s and a concurrent upsurge of both locust and grasshopper problems in Niger, the scope and value of donor assistance to the DCP increased dramatically. In 1988 and 1989, when there was a major locust presence in Niger, the FAO was managing assistance provided by several donors and the FRG and Canada were providing special assistance in addition to their development program. These efforts were complemented by emergency assistance from France, Luxembourg, Italy, Libya, the Dutch, Switzerland, Algeria and Nigeria.

Unfortunately, the nature of locust and grasshopper problems, which are hard to predict, are largely determined by weather conditions and, at late outbreak stages, require massive and expensive control operations, resulted in emergency assistance fatigue following 1989 on the part of most donors. For the FRG and Canadian projects, the costs of responding to at times ill defined locust and grasshopper problems were sapping their development budgets and manpower. For most other donors, there developed a feeling that, for lack of accurate assessment and damage information, the operations needs stated by the DCP were inaccurate and probably too large.

Currently, the DCP receives development assistance from Japan, Canada, the FAO and the FRG. The latter two programs are closing and Canadian assistance beyond 1995 is unclear. Assistance from Japan has normally been in kind (pesticides, vehicles) and not clearly tied to any development objectives.

On a more-or-less annual basis, but also tied to the severity of locust/grasshopper outbreaks, the DCP receives assistance from Luxembourg (spray aircraft), Nigeria (aircraft), France (only if locust/grasshopper problems are severe) and Algeria (locust surveillance). Despite the range of potential assistance, the DCP is hard pressed to maintain a basic early warning system and minimal control operations capacity to bridge the gap between the manifestation of a severe pest outbreak and the availability of a donor's emergency assistance.

The DCP has a good record of preparing annual operations plans and reporting on control operations. The DCP has also been open with donors on planning and formalizing requests for assistance. As a result, donors are not as concerned about reporting on the use of assistance as is the case for food assistance. Also, because a donor personnel are involved in development projects with the DCP, donor coordination is relatively straight forward, with non-local donors (e.g., Luxembourg, Nigeria) often relying on contacts with local project personnel for information and assistance coordination.

The greatest donor concern with DCP operations lies in the Directorate's inability to accurately project potential crop damage and direct control operations to minimize economic losses. An additional, and increasing, donor concern, lies with minimizing environmental damage and human health problems from pesticide use, although the DCP is seen as being very responsive in these areas.

4. Other Disasters

There is no formal system for requesting or coordinating donor assistance to disasters such as epidemics, floods or fires. Assistance for these disasters is handled on an ad hoc basis, usually through existing projects (as in the case of epidemics) or via PVOs (Medecins Sans Frontiers, Red Crescent, Caritas). Donor coordination is also handled on an ad hoc basis, usually based on informal connections between the personnel of different donors' projects and/or between donor personnel who coordinate on other (e.g., food aid) assistance issues.

Depending on the type of the disaster and its proximity to Niamey, donors can have the same problems in providing assistance as noted for food assistance: lack of accurate information, weak needs assessments and imprecise operations plans. Often, the delay in knowing of a disaster means that a donor's response cannot be provided in time for mitigation or relief impact and assistance is either not provided (because it will arrive after the problem has been resolved) or arrives so late as to be used to address other requirements.

III. PROGRAM RATIONALE

A. The Problem

As a least developed country located in the drought-prone Sahel region of West Africa, Niger is characterized by a number of environmental, ecological, demographic and socio-economic features that produce a high degree of vulnerability to disasters. These include natural disasters such as drought, floods, and insect and rodent infestation; medical emergencies such as cholera, measles and meningitis epidemics; and human-abetted (man-made) catastrophes such as fires (especially brush fires). Food-related emergencies constitute the predominant type of disaster in terms of the affected population and the value of assistance provided. While some emergencies affect a large contiguous area and population, many are geographically dispersed. Owing to diverse micro-climates which characterize Niger's ecological zones, localized famines occur even during years of national level surplus production. Hence pockets of food insecurity may emerge within an area of food sufficiency or surplus. Floods and fires typically affect only sections of a village, or several villages in the same area.

Both the GON and donors have expended considerable effort on emergency responses to provide humanitarian assistance to the victims of the frequent disasters which Niger experiences. Responding to disasters has become a significant donor activity.

While appreciative of this assistance, the GON is committed to the long-term objective of national food self-sufficiency and actively seeks to minimize reliance on food aid. Former President Kountche was especially concerned about minimizing the requirements for and dependence on food assistance. Since he assumed power owing to the Diori Government's inadequate response to the famine of the early 1970s, he remained committed to emergency assistance while remaining vigilant about its possible adverse consequences. President Kountche's views on food aid constitute one reason why USAID has never supported regular food aid programs in Niger.

The GON has maintained the same position regarding food aid during the Second Republic: President Ali Saibou devoted considerable effort to the efficient response by the GON and donors to emergency food distribution. By 1989 the GON had established an early warning system (Système d'Alerte Précoce) coordinated by a Permanent Secretary in the Prime Minister's cabinet.

Numerous problems conspire to limit the GON and donors from effectively implementing their commitment to minimize the negative impacts of food aid. Most of these problems stem from institutional and policy constraints in the provision and use of emergency food aid. The main problems preventing a more effective use of food aid relate to donor policies and to the GON's limited institutional capacity to convert the advantage of early warning

information into the reality of disaster mitigation interventions.

The first problem with food aid is the disincentive effect of bringing in imported food when national or regional surpluses are available. Imported food is frequently not the most appropriate type of assistance, but donors are often limited in their ability to purchase food locally. Since 1988, the Club du Sahel and the CILSS have proposed a Food Aid Charter to reduce the negative impact of imported emergency food assistance by promoting the purchase of food within the country or region for emergency distribution prior to importing emergency food. This philosophy is consistent with USAID/Niger's objective of stimulating local food production.

USAID/Niger, however, has no mechanism for financing such purchases. Since emergency food aid under PL 480 is tied to the provision of U.S. agricultural commodities, the U.S. has been unable to respond flexibly to local emergencies. Most other bilateral and multilateral donor organizations face a similar predicament since their governments' policies demonstrate a preference for supplying commodities over providing monetary assistance in responding to emergencies. The GON, for its part, has no resources available for the purchase and distribution of national food supplies.

The second problem relates to the reluctance of donors to address localized food shortages when a national cereal surplus exists. The dependence on aggregate measures of food security, such as the national food balance sheet, tends to mask the reality of acute localized food shortages. These shortages reflect a lack of access to food (usually a lack of purchasing power) rather than an outright unavailability of food. This situation was particularly evident during the 1991-92 production year.

The third problem is the lack of donor confidence with respect to the reliability of the data on which the GON bases its estimates of emergency needs. Donors have been responsive to GON requests for emergency assistance in accordance with their own assessments of need and possibilities for providing resources for different types of emergencies. When donors do not find the Government's estimates credible, they refuse to provide assistance.

The fourth problem which affects donor support and collaboration is lack of confidence with respect to a reliable system for monitoring and documenting the end-use of emergency commodity assistance. When the GON cannot furnish evidence of how emergency assistance has been used, donors are reluctant to supply similar aid when asked again for such support.

The fifth problem is the GON's limited institutional and financial capacity to undertake disaster mitigation interventions and/or to mobilize donor support for these interventions.

During the course of its long involvement in providing disaster assistance, USAID/Niger has come to recognize the limited options available to it for addressing food-related disasters in Niger. Whereas A.I.D. has developed mechanisms for responding quickly and effectively to major food, medical and natural disaster emergencies by calling upon OFDA and other AID/W resources, the Mission is all too aware of the management burden imposed on it and the lack of impact from such assistance beyond the immediate palliative of saving lives.

USAID/Niger's emergency response capability is managed by its Disaster Relief Unit (DRU), which coordinates early warning, emergency assistance and locust/grasshopper monitoring within the Mission. DRU also coordinated and implemented a Niger Dieldrin Disposal Program in 1991 to remove toxic pesticides which were no longer recommended for locust/grasshopper control. The present DRU structure, while affording the Mission in-country emergency response and coordination capability, extracts a high cost in terms of USAID management time, demands on Mission procurement and financial management staff, and disruption of other project and program support activities. USAID/Niger has identified the need for greater efficiency in providing emergency assistance in order to reduce the management burden on the Mission and to more effectively meet the challenges of providing transport, distribution and monitoring for relief supplies and of developing a mechanism through which more appropriate forms of assistance can be provided.

Thus, USAID/Niger proposes a development activity, funded with development resources, to expand the GON's capacity to provide timely and appropriate responses to disasters, especially food-related disasters, which include appropriate mitigation activities, so that the information available through early warning can be effectively utilized.

The rationale for providing development assistance to address disaster preparedness and mitigation in a chronically disaster-prone country such as Niger is based on a multiplicity of factors. The overriding factor is the negative impact of disasters on development and economic growth. A famine or medical emergency inevitably sets back development activities. Large, nation-wide famines such as those of 1973-74 and 1984-85 devastated entire regions, forcing many people to relocate and change their lifestyles, e.g. many nomads had to sedentarize after their herds were decimated. Major health epidemics reduce overall well-being and have an adverse impact on the implementation of health programs and indicators.

If progress is to be attained through conventional development programs, it is critical to address disasters effectively and to mitigate their causes and effects. Effective response to disasters requires early and accurate assessment through early warning. It

also requires a better understanding of the dynamics of the coping mechanisms which victims rely on for survival, so that assistance can be targeted more effectively. Finally, it requires more flexible options for providing emergency assistance and relief, so that the scarce management and financial resources which donors provide to Niger can be more effectively utilized.

The rationale for the Disaster Preparedness and Mitigation Program is to provide assistance to the GON to lessen the impact of disasters by strengthening the GON's early warning system, developing a disaster preparedness capacity at both local and national levels, and improving the planning, coordination, implementation and monitoring of disaster mitigation and relief activities. Strengthening the GON's institutional and financial capabilities in the areas of assessment and provision of effective emergency assistance will improve the range and efficacy of donor and GON efforts in disaster relief and mitigation interventions in Niger.

The DPM program will help the GON and the donors to establish an institutional framework which can more effectively utilize assistance and which can mobilize resources to address disasters with a broader set of appropriate response options. One specific option which the Mission and the GON would like to have is the ability to purchase food locally during years of adequate production for distribution to pockets of need.

In addition to providing a more appropriate set of response options to the GON and donors, the DPM program also seeks to address the main causes of donor reluctance to provide assistance. This will entail improving the reliability and confidence-level of the data on which the GON bases its estimates of food need and developing a reliable system for monitoring and documenting the use of emergency commodity assistance and improving donor coordination.

B. Possible Approaches

The Disaster Preparedness and Mitigation Program was conceived as an investment that would mitigate the negative impact of recurring food-related disasters through improved disaster early warning, preparedness, planning and response. Niger is a country whose recurring cycles of disasters are well documented. The most pressing needs relate to food production deficits and famine resulting from the erratic rainfall patterns in the Sahel and the periodic damage to crops caused by pest infestation. As the DPM design advanced, the alternative of expanding the program to include all disaster situations (health epidemics, floods, etc.) was reviewed and adopted to take advantage of an opportunity to establish interrelated systems and optimize the institution-building aspects of the program.

As approved on February 21, 1991, by the Africa Bureau's Executive

Committee for Project Review (ECPR), Disaster Preparedness and Mitigation was presented as a Project Assistance activity. A key element in the Project Identification Document was a fund to purchase and/or pay the costs of distribution of local or regional stocks of food grains to alleviate smaller-scale food shortages in Niger. While the ECPR supported the concept of the fund as the initial step in a developmental approach to chronic food deficiency problems, GC/AFR advised against using DFA funds to purchase food for short-term relief. USAID/Niger was advised that the more appropriate ways to address food emergencies are those available under Section 451 (Foreign Disaster Assistance) and the PL 480 programs. As a result, during the design process, a number of different approaches for establishing the emergency fund were investigated.

1. Develop a multi-donor effort in which other donors would provide or purchase the food:

Niger is a least developed country whose economic development is largely dependent on the donor community for support. Closer and more effective donor cooperation is necessary on all fronts given the dominant role donors play in Niger's investment strategy. When disasters occur, whatever their cause (food-related or health), the Government of Niger of necessity looks to the donor community for assistance. USAID has been a lead donor in responding to food-related emergencies. Other donors with fewer management resources in country have been less able to respond owing to their lack of confidence in the Government of Niger's ability to carry out efficient delivery programs on their own. Donor group consultations occur more frequently where common sectoral objectives are involved, and the information flow is an important element in strengthening ties. However, it is as yet unrealistic to build a project structure that would rely on the provision of food (or monetary) resources outside of A.I.D.. Such cooperation is a longer-term objective. DPM has been designed so that donors may elect to contribute to the fund. The likelihood that they will do so may increase over time as the institutional and systemic improvements to the early warning and response systems bear fruit, including the important monitoring function. The cycle of disasters in Niger is not expected to be mitigated out of existence within the life span of DPM. The fund is expected to be depleted. If proven efficient in meeting disaster situations, the fund and its replenishment could offer an important and viable option to the donor community as a whole.

2. Monetize Section 416 or Title III commodities:

The PID indicated that the possibility of monetizing Section 416 or Title III commodities had been reviewed and ruled out. This issue was discussed during the ECPR, and, as a result of lingering questions, a more definitive report on this subject was prepared by AFR/ARTS/FARA/FSP entitled Niger: Commodity Analysis for PL-480

Title III Food Aid, February 6, 1992. That report found that, based on GON statistics, Niger was food self-sufficient (domestic cereal production and imports equaled or exceeded requirements) in most years, but only on a national basis. Food shortages occur on a chronic basis in several regions of the country due to inadequate production and the inability of certain segments of the population to buy food. Based on this chronic regional deficit situation and on the poverty criterion, Niger would be eligible for Title III. Having established eligibility, the five criteria for commodity selection were then reviewed: (1) expected magnitude of the food deficit; (2) expected size of the domestic market; (3) competitiveness of U.S. commodity; (4) market liberalization/private sector development; and (5) commodity re-export. Rice, wheat, vegetable oil, and tallow were analyzed, and no appropriate food aid commodity for monetization was found. The recommendation of the AFR/ARTS report was that Title III food aid would not provide an appropriate mechanism for generating financial resources for the DPM Emergency Fund.

3. Debt swap through a PVO:

Commercial debt has been largely eliminated by a joint World Bank/other donor loan consolidation/reduction program.

4. Have a PVO manage the fund but raise outside resources for the fund:

This alternative was proposed by the ECPR without identifying where the additional "outside resources" might be secured. Apart from other donors, already referred to above, there are no known resources that might be tapped for the fund. PVOs were identified in the PID as potential implementation agents. As designed, fund management may reside elsewhere, but a PVO role is expected in DPM, particularly in managing relief activities.

5. Explore the use of the Agriculture Sector Development Grant (ASDG II) counterpart funds:

While the type of food-for-work/cash-for-work programs envisioned under the DPM Emergency Fund may complement ASDG II objectives, any direct linkage between the two could not be justified given the different needs the two programs will be serving and the specific plans already developed for ASDG II counterpart funds. ASDG II is aimed at supporting GON efforts to increase productivity and incomes in rural Niger in a sustainable fashion. It will help establish the legal and policy framework for natural resource management in Niger and strengthen institutions which work directly with rural producers. Counterpart funds are programmed on two tracks: (1) the Government of Niger's investment budget and operational budget support (Ministry of Agriculture and Livestock and the Ministry of Hydrology and Environment) and (2) NGO and private sector field activities supporting ASDG II program

objectives, e.g., natural resources management (NRM) interventions, NGO strengthening, and study/exchange tours.

6. Include the proposed fund as a Nonproject Assistance Component of DPM with policy reform measures:

This is the only feasible alternative at this time.

C. Program Goal and Purpose

The goal of the Disaster Preparedness and Mitigation Program is to promote greater well-being among Nigeriens through minimizing the negative impact of disasters on economic development. This program goal is intended to safeguard and support the Mission's strategic goal, which is to "promote sustainable market-based economic growth that emphasizes locally managed resources and reduced population growth." A fundamental factor influencing Niger's economic growth prospects is its variable climate, which results in uncertain food production. When famine or threats of famine occur, the population is forced to readjust normal economic activities in favor of survival, wreaking havoc with development objectives. Similarly, health emergencies typically derail the implementation of the Mission's health portfolio. Thus, the DPM Program is intended to minimize the negative impacts of emergencies on the implementation of development activities in Niger.

The purpose of the Disaster Preparedness and Mitigation Program is to strengthen Nigerien capabilities to assess and effectively respond to disasters. Although the program will be available to address various types of disasters, a major emphasis of the DPM will be to focus on the most common, widespread and devastating type of emergency in Niger, food shortages.

A disaster is sometimes defined as an event that exceeds local capabilities to control and compensate for negative consequences. Disasters are, in effect, about thresholds, which tend to be lower in less developed countries where people live close to the margin of existence and have few resources to draw on. The DPM Program is intended to raise the threshold for survival by enhancing local, regional and national capabilities to respond to disasters.

The principal objectives of the DPM Program, which are expected to be achieved by the end of the project, are:

- a vertically integrated early warning and response system institutionalized within the GON, including a specific decentralized capability;
- appropriate mitigation activities identified for varying situations;
- improved donor coordination in early warning and response; and

- an Emergency Fund found effective in responding to smaller-scale emergencies.

The DPM Program's mission is clear and unambiguous: to reduce and mitigate the human suffering and economic development costs resulting from disasters. DPM Program resources will be available to respond effectively to smaller-scale disasters and to assist with logistical support for larger emergencies where required commodity assistance will be provided from other U.S. and /or donor resources.

While the program addresses mitigation of both the effects and the causes of disasters, it has insufficient resources to "solve" the structural problems that exacerbate vulnerability to crises. A distinction must be drawn between "development," as it is generally conceived, and disaster relief and mitigation. "Development" typically seeks to improve income or economic productivity or social well being for the future. "Relief" seeks to respond to an existing and immediate crisis that has overcome local coping capacity. "Mitigation" seeks to avert the worst of an impending disaster by targeting the conservation of productive assets at the household level, thereby quickening recovery and reducing vulnerability to future crises.

The DPM Program seeks to reduce the need for disaster relief by focusing on effective mitigation strategies. The program is not intended to raise rural producer incomes or to improve maternal and child health, although both of these "development" objectives may flow from a successful disaster relief or mitigation intervention.

IV. PROGRAM DESCRIPTION

The program purpose and objectives will be accomplished through a combination of policy and institutional reforms, short- and long-term technical assistance, and the establishment and management of an Emergency Fund. Emergency Fund resources will be used to complement national and international contributions to relief and disaster mitigation interventions. The Disaster Preparedness and Mitigation Program consists of an institutional development component, a financial component in the form of an Emergency Fund, and a project component. Each component is discussed below in terms of specific objectives and activities to be undertaken.

The DPM Program proposes a series of interrelated activities that will over time serve to strengthen Niger's ability to mitigate and respond to disasters. The assumption is that disasters, primarily drought-induced famine, will continue into the foreseeable future given Niger's physical and economic environment, even allowing for worthy development policies and initiatives to prevent food shortages. The DPM Program is designed to help build Nigerien disaster capabilities regardless of the size or nature of the disaster. Given the limited amount of money available, the Emergency Fund, when using its own resources exclusively, will respond only to smaller-scale disasters. For larger-scale disasters, other resources will be required, with the Emergency Fund, if called upon, playing only a limited supporting role. The DPM design recognizes that a major famine may occur within the life of the program given climatic conditions and past experience in Niger.

A. Institutional Development

The institutional development component of the program includes two major objectives with several subobjectives:

Principal Objectives:

1. Establish a GON organizational basis for integrating early warning and disaster response.

2. Develop decentralized GON capabilities in early warning, emergency preparedness, and relief and mitigation activities.

Subobjectives:

1. Clarify the Nigerien legal framework for disaster declaration and response.

2. Strengthen GON management functions to account for disaster operations and assistance.

3. Improve donor coordination in disaster mitigation and

response.

The two principal objectives interact as fundamental components for developing an effective and efficient disaster assistance system in Niger. Objective 1 deals with the structure of the system and the necessary linkage of an early warning function with a response function. Objective 2 focuses on the decentralized process of disaster assistance and the development of specific technical capabilities necessary to run an effective disaster assistance system. The subobjectives allow the system as set up in objectives 1 and 2 to function smoothly. In seeking to achieve these objectives, the DPM will promote normal ministerial and service functions that should and can mitigate certain emergencies.

1. Establish an organizational basis for integrating early warning and disaster response.

Following its experience with the droughts of 1969-74 and 1984-85, the GON, in 1989, created a National Early Warning System (Système d'Alerte Précoce, SAP) as a permanent government structure attached directly to the Prime Minister's Cabinet. A UNDP/FAO project providing institutional support to the SAP came on line in November 1990. According to GON legal text, the SAP is to detect and predict crisis situations (early warning function) in the agricultural, socioeconomic, health and nutritional sectors. It is also to determine necessary action (response function) to preclude and/or mitigate crisis situations. A thorough discussion of the history and functioning of the SAP is found in the Institutional Analysis in the Annexes.

For its early warning mandate, a nascent, though improving capability has been established. Only limited capability, however, has been developed in disaster response. Disaster response is typically ad hoc, and generally occasions the request for a meeting of the representatives of the international donor agencies most likely to contribute assistance, usually in terms of food aid. The SAP currently has neither the personnel, financial nor technical resources to perform a response function. Neither does any other administrative entity of the GON. The DPM will assist the GON in fulfilling the SAP's mandate by developing a disaster response capability that is broader in orientation than merely providing food aid and that includes preparedness and mitigation. This will correct the current lack of complementarity and by so doing lend credence to the avowed purpose of an early warning system.

Existing models of national disaster response organizations around the world range from the creation of a specialized ministry to the delegation of disaster relief responsibilities to humanitarian organizations. In the case of Niger, it is recommended that such a capacity be developed within the SAP, thereby completing its mandate and providing direct access to the early warning information. This also appears to be the most cost effective option since

only limited additional personnel would be required and some logistic, communication and data management resources could be shared with existing SAP units. The current and proposed organizational structures are shown in Figure 1.

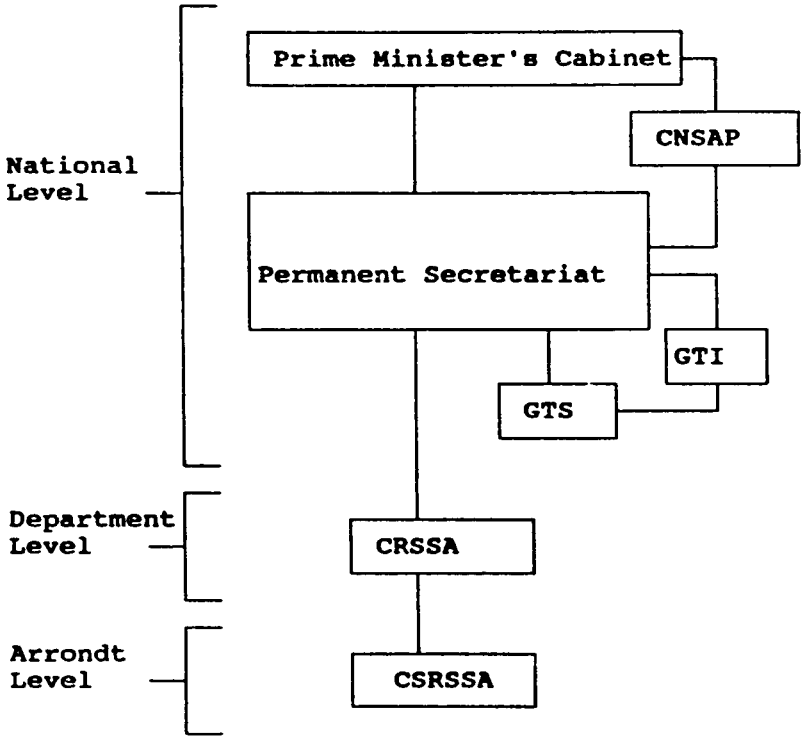
The current structure consists of components at the Prime Minister's level, the line ministry level, the regional (department) and sub-regional (arrondissement) levels. The national committee, CNSAP, is made up of the Secretary Generals of all of the line ministries and is presided over by the Director of the Prime Minister's Cabinet. The Permanent Secretariat is the executive unit which coordinates the various components of the system. There are six Work Groups (Groupes de Travail Sectorial, GTS) covering different aspects of food security. The chairmen of the work groups form a consultative body to the Permanent Secretariat called the Interdisciplinary Work Group (GTI).

The proposed structure includes the designation of two units within the Permanent Secretariat: one unit that encompasses the existing early warning function, to be called the Early Warning Unit (Cellule de Surveillance et d'Alerte, CSA) and the other that creates the response function, to be called the Preparedness, Relief and Mitigation Unit (Cellule de Prévention, Secours, et Attenuation des Catastrophes, PSAC). These modifications do not change the original attributes of the Permanent Secretariat but allow for the delegation of responsibilities to two parallel and complementary units.

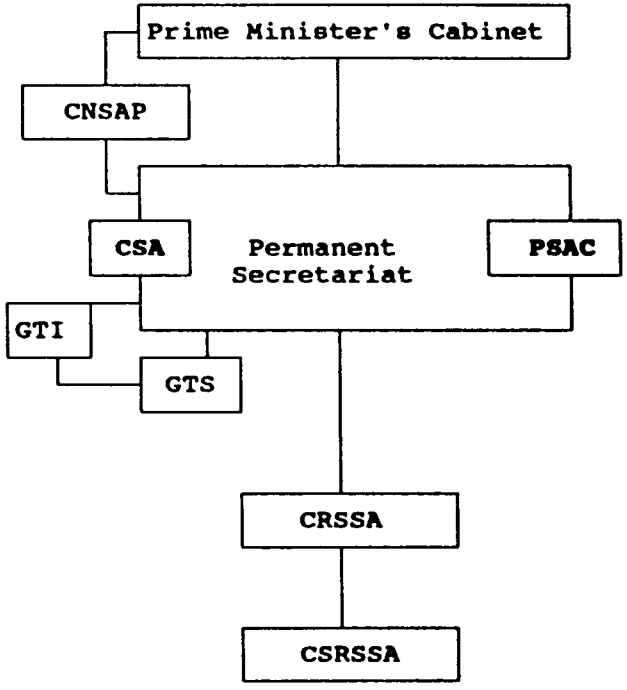
The CSA will be responsible for the data collection, analysis and communication functions of the early warning system. The PSAC will be a principal user of CSA data and will be charged with responsibility for disaster preparedness, response and mitigation, including the coordination of other emergency response organizations and personnel as appropriate. These might include the Directorates of Civil Defense, National Security, Crop Protection and Territorial Administration, OPVN, and NGOs such as the Red Cross and Caritas. Both CSA and PSAC will rely on the decentralized SAP structures for information and implementation of disaster assistance interventions in their jurisdictions.

The position of Permanent Secretary, as the head of the Permanent Secretariat, currently exists and will remain as the head of the two units. Staff and designated tasks exist for the CSA. DPM will provide one technical assistance contractor with skills in early warning and data processing to reinforce the CSA. Elaboration of responsibilities and new staff are needed for the PSAC, including amendments to current legal texts as necessary. Due to the formal attribution of disaster relief and mitigation responsibilities to the SAP, the Permanent Secretariat is legally empowered to act in this domain. The formal establishment of the proposed structure, and especially of PSAC, with sufficient technical

PRESENT SAP STRUCTURE



PROPOSED SAP STRUCTURE



KEY:
- **CNSAP** Comité National du Système d'Alerte Précoce
- **CSA** Cellule de Surveillance et d'Alerte
- **PSAC** Cellule de Prévention, Secours, et Atténuation des Catastrophes
- **GTI** Groupe de Travail Interdisciplinaire
- **GTS** Groupes de Travail Sectoriel
- **CRSSA** Cellule Régionale de Suivi de la Situation Alimentaire, Sanitaire, Nutritionelle
- **CSRSSA** Cellule Sous-Régionale de Suivi de la Situation Alimentaire, Sanitaire, Nutritionelle

personnel and resources, will represent an important commitment by the Government of Niger to the improvement of national disaster response capabilities. All indications are that such commitment will be forthcoming.

The responsibilities of the PSAC will include:

- coordinating and monitoring use of GON and donor assistance;
- managing relief and mitigation activities;
- developing preparedness capability;
- providing technical support and supervision to decentralized committees;
- reviewing emergency assistance proposals; and
- developing an effective disaster management system that accounts, monitors and evaluates.

To accomplish these responsibilities, GON personnel will need to be posted to the PSAC. Three positions are recommended: (1) a senior level civil servant with experience in disaster operations, logistics, and management, as head of PSAC; (2) a mid-level person with a background in project design, monitoring and evaluation; and (3) a technician with substantial skill and experience with computerized data systems. DPM will provide a disaster operations specialist who will serve as the direct counterpart to the senior GON staff member. The project design, monitoring and evaluation person would work closely with a second TA team specialist for training and monitoring systems. The GON positions are expected to be filled by the reposting of civil servants currently in service rather than hiring new personnel. Pre-service and on-the-job training will be provided for these new positions through the DPM Project component.

2. Develop decentralized capabilities in early warning, emergency preparedness, relief and mitigation activities.

a. Decentralization

The GON is pursuing a policy of decentralization throughout the government. Within the SAP, a structure exists to facilitate this process through departmental (CRSSA) and arrondissment committees (CSRSSA) (see Figure 1). However, not all of these committees have formal administrative orders establishing their composition and functions. Statutes need to be formalized and signed for over half of the 35 arrondissements. Also, the system has been largely top-down, with the national level requiring data from the lower levels to estimate food aid requirements and then requesting those levels to handle distribution. The DPM proposes to recast this process by vertically integrating the various levels and locating emergency assistance responsibility at the most decentralized level, the arrondissement.

Worldwide experience in disaster preparedness and mitigation

underscores the necessity of localized collection and utilization of information based on time and site specific realities. Because of varying social, economic, political and environmental conditions, emergency situations affect people differently and therefore require different responses. While the need for a central capability in early warning and response is important, the critical level for data collection, analysis and the implementation of interventions is the locality.

The DPM Program will channel substantial technical and financial resources into the development of this decentralized foundation. As the smallest, most localized administrative unit, the arrondissement, will be the major focus of the DPM Program. Specifically, this assistance will include training and support to develop functioning arrondissement committees; the development of a locally based early warning system, including indicator development and use of data for decision making; simplified vulnerability mapping; preparedness plans; and relief and mitigation options. Further discussion of technical skill development is provided in the following section. Limited financial support in the form of supplies and fuel will be provided to arrondissements through the Emergency Fund in support of their early warning and disaster response activities.

The arrondissement, however, does not stand in isolation from its supporting system. Integration of levels and functions throughout the SAP is paramount to efficient and effective disaster assistance in Niger. Therefore, appropriate training and human resource development will take place at the level and among the staff where needed, with provision made for refresher sessions or targeted assistance, as required. Membership of the existing SAP committees consists of personnel from the relevant line ministries. A problem to date has been the lack of defined responsibilities, operating procedures, communication channels and decision-making authority for the varying levels in the SAP structure. The DPM Program will facilitate the clear definition of job responsibilities and decision-making channels throughout the SAP structure in order to vertically and functionally integrate levels and operations.

The financial capabilities of arrondissements and communes (decentralized cities and towns) vary considerably. Though outside the DPM purview, continued efforts are needed to improve revenue mobilization and financial management capacity at the local level if sustainable decentralized capabilities are to be established.

The DPM Program seeks to develop and/or support full institutional capacity at all levels of the SAP across Niger. But the program will necessarily progress in stages. Early warning information development, training and other support activities will be concentrated in a limited number of arrondissements during the initial period of the program and then expand to other arrondissements with the benefit of lessons learned.

Local Participation. To the extent possible, community members -- men and women -- will be involved in monitoring the local food security, health and nutrition situation. Rural populations -- pastoralists, agriculturalists, and fisherfolk -- have valuable experience and a foundation of indigenous technical knowledge to draw upon. Experience in Niger is growing with using village committees to monitor infant growth and nutritional levels through the UNICEF nutritional surveillance program. Likewise, herders and farmers could serve as local monitors of crop and pasture production in the early warning system. Rural producers already provide a large portion of their own relief when disaster strikes through indigenous coping mechanisms and traditional forms of assistance. The appropriateness of any external response action will largely depend upon what the victim sees as his/her needs and priorities. Local populations could be involved, for example, in deciding whether to provide livestock fodder or support for dry season gardening in a given situation and locality. Similarly, if the local population places high priority on the development of their local resource base through land reclamation and anti-erosion activities, they may decide that a locally managed food-for-work project would best serve their immediate needs and long term priorities during a period of food insecurity. Arrondissement level committees will be spearheads for encouraging and facilitating local participation. The DPM will promote this endeavor through its support to the arrondissement level.

b. Capability Development

Early warning capability. Fundamental to a disaster assistance capability is an early warning system that is based on reliable and valid information. The SAP has made strides in this regard but still lacks a consistent methodology that provides credible information based on local realities that donors can believe (see the Institutional Analysis in the Annexes).

Development of a consistent vulnerability methodology is a priority of the CSA. The data used in such a system must be localized socio-economic, climatic, natural resource, nutritional, health and production information that is collected at the arrondissement level. The UNDP/FAO project has supported the SAP central level in early warning data collection and analysis. While the future of the project is unclear, there is the expectation that technical support will be continued at the central level and that funding will also be provided to strengthen department level committees (CRSSA). USAID, through the FEWS LSGA with the GON, will be providing a technical assistance position to the SAP with responsibilities in administration, training, indicator development, vulnerability assessment and monitoring. The position is initially to run through December 1992, with the anticipation of one additional year pending availability of funds. In recognition of the importance of early warning, the DPM has included in the TA team an early warning specialist for the first two years of the TA

contract.

Below the national level, assistance to early warning has been less focused and is not included in the UNDP/FAO project. Because of this, the DPM's focus at the arrondissement level will be particularly important. DPM will contribute to the development of strong capabilities in the collection, utilization and transmission of data based on local agro-ecological conditions, production systems, demographic characteristics, and socio-economic factors. Short-term technical assistance and logistical support will be provided in the areas of indicator development for early warning and for vulnerability assessment. These indicators will be used to monitor conditions, detect brewing emergencies and activate response actions, either mitigation or relief. This information will be used at the arrondissement level and selected indicators will be forwarded up the system to meet national and donor information needs. One anticipated result of DPM efforts to improve the use of information at the local level should be increased reliability and accuracy of the data collected and, thus, increased use by donors.

Capability in Preparedness. Disaster preparedness is a new area for the GON. Effective preparedness depends upon planning. It involves drawing up plans that will guide the actions of GON services, donors and NGOs in the event of a disaster. It requires knowing the probabilities of risk and the basket of resources available to mobilize in case of need. It prepares for the required increases in staff and funds needed during an emergency with advance negotiations of commitments of help from donors and contractors.

At the present time, though interest has been expressed, no national capability exists in the areas of contingency planning or crisis management. At the heart of disaster preparedness is the knowledge of what resources are available where, and how to deploy them effectively. Inventories of emergency commodities such as blankets, cots, water tanks, transport and logistical resources and trained personnel need to be established and routinely updated. Civil Defense is a potential user and contributor to resource inventories, as are humanitarian organizations such as the Red Cross. Entities such as OPVN, Civil Defense, National Security and relevant NGOs should be integrated in a communication network that assures timely notification of incipient or imminent crises, resource needs and availability and the intervention strategy to be implemented. At the same time, site operations need to be able to communicate with those units providing the assistance. Communications systems, such as the one maintained by the Directorate of Crop Protection (DCP), could be of use in various types of emergency situations.

Disaster preparedness is an objective not only at the national level, but applies to each level in the SAP system. Preparedness

efforts will commence in four arrondissements, where comprehensive contingency plans and early warning capabilities will be fully developed. Based on the experience and results obtained, the model will be applied in adjoining arrondissements, so that preparedness capabilities extend fairly widely in Niger. It is expected that project-trained arrondissement staffs will serve as trainers and facilitators in other regions.

Particular attention will be paid at the arrondissement level to compiling an Operational Emergency Plan Manual, which will help alleviate the problem of high staff turnover. The manual would describe the disaster strategy and plan, early warning system, implementation procedures, reasons for and operations of different response activities and inventories (sources) of equipment, and services and supplies needed in emergencies of different types. The intent is to formulate a set of emergency actions involving mitigation and relief activities for specific populations and types of emergency situations that can be activated as needed. The identification of an incipient or actual crisis through the arrondissement early warning system would lead to the selection of the appropriate response measures from the shelf of established responses. Careful attention should be given to the use of NGOs, community organizations and private sector firms for implementing relief and mitigation activities. Arrondissement technical and personnel resources are limited, and priority should be given for using them in supervisory and technical roles. DPM will facilitate the development of local emergency plans and implementation procedures through the arrondissement committees in collaboration with GON technical staffs, NGOs and donors working in the area.

Mitigation Capability. To the extent possible, the DPM Program will promote mitigation interventions over direct relief, when the former are technically feasible and adequate implementation means are available. Mitigation activities seek to reduce the severity of impending emergencies by intervening prior to the point where coping mechanisms are no longer effective or recovery is improbable. To be successful, mitigation activities are dependent on a careful assessment of local conditions, needs and capabilities. Local populations and technical services must be fully involved in assessing the character and severity of the crisis, and then in determining the nature of the response. Finally, mitigation options should be designed to reinforce local institutions, when appropriate, and to strengthen the local role in managing and accounting for resources provided by the mitigation intervention. Local associations such as herders' associations and womens' groups can provide insights into the perceptions of vulnerability and the appropriate responses for their groups.

The range of possible mitigation options is extensive, though evaluations of activities in the Sahel are limited. Mitigation interventions may be designed to:

target specific subgroups, such as children and the elderly (expanded feeding programs, health care services);

provide generalized benefits (well digging and deepening);

improve access to food and/or prevent the liquidation of productive assets (gardening initiatives, credit and subsidy programs); and

reconstitute productive assets (provision of seeds, tool packs and animals).

Mitigation activities may be implemented through a food- or cash-for-work (FFW/CFW) mechanism, distribution of free or subsidized commodities, or the provision of credit. Some interventions require widespread labor mobilization (food-for-work public infrastructure construction) while others work more through market mechanisms (local market support and credit programs). Public investments such as road maintenance, school construction, tree planting, firebreaks and soil and water conservation infrastructure are common FFW/CFW activities. Some mitigation interventions, such as digging or deepening wells for dry season gardening, are reasonably well understood and easy to implement. Others, such as animal destocking or cash-for-work projects, are more problematic and will require careful testing and evaluation. For a discussion of the different types of mitigation activities and likely participation, see the Social Analysis in the Annexes.

Mitigation activities will take place at the location of need, whether it be a single village or a larger region. Depending upon this level, responsibility for implementation may fall to the arrondissement or department committee, local group, local NGO, or the national PSAC unit. The implementation mechanism for mitigation activities may include contracting with private sector enterprises, contracts with international and Nigerien NGOs and support to local organizations including arrondissement governments. Contract agreements need to clearly specify responsibilities and compensation. The enforcement of contractual obligations will be the responsibility of the GON. Monitoring GON performance in this area will be an important task for the DPM project assistance team.

Besides the mitigation activities undertaken by arrondissements, NGOs or local groups in response to imminent or actual disasters, the program will also conduct a limited number of pilot mitigation activities under the Project Component (see Section IV.C.9.). These pilot activities will come under detailed and systematic scrutiny in order to analyze their effectiveness and potential for replicability. Criteria for selection of activities to pilot test may relate to site parameters or type of activity as determined by the institutional contractor according to program needs and priorities.

Capability in Disaster Relief. A key measure of the DPM Program's success will be the effective coordination and implementation of disaster relief. Relief activities may involve such things as the purchase of foodstuffs from OPVN and their delivery to severely food deficit villages, the purchase of aircraft fuel for crop protection in case of a major insect outbreak, or payment of the costs of transporting emergency workers to a flood site.

PSAC will coordinate both information and resource flows through the department and arrondissement committees, providing the GON with a single coherent system for disaster management. Requests to international organizations and Niger's development partners for emergency assistance will be coordinated by PSAC and communicated through the Office of the Prime Minister. Donors will be able to request additional information directly from the Permanent Secretariat (both the early warning side, CSA, and the disaster response unit, PSAC) to allow them to better plan and substantiate requests to their governing bodies. Commitments of assistance and the reception of funds and commodities will be recorded by the PSAC. Disaster relief operations will be coordinated by the PSAC in conjunction with the relevant GON agencies. For example, an emergency meningitis vaccination program would be planned by the Ministry of Health's (MOH) Emergency Relief Office (Bureau de Secours d'Urgence) with technical assistance from PSAC's disaster operations specialist. The quantity of vaccines and other assistance needed would be estimated by the MOH and communicated to donors by the Permanent Secretary or directly by the PSAC. The latter would also record commitments and deliveries and assure that the agencies responsible for execution (department and arrondissement health services) maintain full and accurate records of utilization.

Disaster response is a responsibility of the government. The PSAC will be responsible for seeing that disaster assistance is provided, but they themselves will not physically deliver the required commodities. The program will experiment with and develop the capabilities of various implementation mechanisms. Implementing agencies will range from humanitarian organizations, such as the Red Cross or CARITAS, to local technical services, such as those participating in the CRSSA and CSRSSA, to private sector firms that can be contracted for the provision of specific services, such as transport and storage. Humanitarian organizations such as the Federation of Red Cross and Red Crescent Societies, the Nigerien Red Cross and CARITAS have experience in managing relief activities and are able to mobilize volunteers and staff across the country. It is expected that relevant GON services will be involved in roles from supervision and verification of relief activities to full responsibility for execution.

Private sector firms, as few as there are, possess logistical resources critical to emergency relief operations. They can also play an important role in the design and execution of specific

mitigation activities, such as employment generating projects with a construction or engineering element (road maintenance, anti-erosion structures, construction). The contracting and rapid disbursement mechanisms to be established under DPM will allow local government agencies, NGOs, and private sector firms to intervene effectively and with a minimum of delay. To the extent possible, a system of pre-qualification and standard contractual agreements will be established prior to the onset of an emergency.

DPM Subobjectives:

a. Legal Framework for Disaster Declaration and Response

The definition of legal texts and procedures for declaring and responding to a disaster is necessary. This definition, however, is not a prerequisite for program start-up.

The Prime Minister, as head of the government, is technically responsible for the operation of the ministries. The Ministries of Interior, National Defense, Public Health, Agriculture and Livestock, Water Resources and Environment, Foreign Affairs and Cooperation, Commerce, Transport and Tourism, and Finance and Plan each play a role, or numerous roles, in the identification and estimation of crises and in the determination and execution of disaster response activities. Delineation of responsibilities and authority is an essential aspect of disaster preparedness. Further clarification, both procedural and legal is required in this area.

The point at which a problem becomes a disaster depends on a number of factors, including the number of people affected, the economic cost of the episode, the level of risk of expansion and the political prominence or sensitivity of the region affected. The determination of a disaster or emergency requires the development of clear and measurable thresholds. No such definition of thresholds exists at the present time in Niger. Thus, what is a problem that can be resolved by routine actions of government, private organizations and citizens and that which is an emergency situation requiring external intervention is a matter of individual discretion and judgement. DPM will facilitate dialogue between donors and the government to establish clearly defined and measurable thresholds for disaster declaration.

For bilateral and multilateral development agencies, the lack of an official declaration of emergency lessens the credibility and immediacy of an appeal for aid. For the Government of Niger, the lack of a legal basis for disaster declaration raises the question of when recourse to extraordinary measures is justifiable. Emergency powers typically allow for the reordering of administrative and technical priorities, the requisitioning of public and private resources (such as vehicles or buildings) and budgetary reallocation. Regional administrators may need reserve legal powers to guarantee quick and efficient response. An examination

of laws and stipulations is needed regarding the ability of regional administrators to commandeer vehicles and resources in time of need.

Similarly, there remains some ambiguity in regard to the legal basis, responsibilities and authority of the Director of the Prime Minister's Cabinet in regard to his recent designation as the Food Aid Coordinator for the GON. Since food insecurity is the model form of crisis in Niger, the importance of this position requires that it be provided with solid and explicit legal authority. Satisfactory resolution of the legal basis of the Food Aid Coordinator position must be given high priority, either through the development and approval of the necessary legal texts or by demonstrating to USAID's satisfaction that sufficient legal authority exists under present law.

b. Management Functions

Central to an effective disaster response system, particularly in the eyes of donors, is a rational system for (1) accounting for funds and commodities and (2) monitoring program performance and evaluation of results. Both the PSAC staff and the technical assistance team will include members with monitoring, evaluation and data systems skills. One of the technical assistance team's priority tasks, working with the PSAC staff, will be to put in place a national management system that provides the GON, donors and USAID assurance of proper management and use of disaster assistance.

Accountability system. The accountability system will include the designation of roles and responsibilities throughout the SAP, the development of standard reporting forms, transmission channels, review systems, and independent verification capability. Such a system needs to track and account for all forms of external emergency assistance and for domestic contributions provided for emergency operations. By serving as a focal point of disaster response, the PSAC will be well positioned to receive, manage, document and report on any type of emergency assistance (funds and commodities) received and used. Reports will be available to interested parties.

The establishment of a systematic documentation system responds to the public demand for transparency and accountability and will go far towards satisfying the legitimate concerns of donors regarding the utilization and impact of emergency assistance.

Evaluation system. In conjunction with the accountability system, the DPM Program will contribute to the establishment of an evaluation system that can produce credible information and reports on SAP performance and results of the provided disaster assistance. Certain ongoing monitoring functions related to SAP performance are envisioned as well as periodic evaluations of the effectiveness and

efficiency of relief and mitigation activities. Such evaluations will be conducted by PSAC or by an independent agency under contract to PSAC.

c. Donor Collaboration

Most international and bilateral donors are involved at least indirectly in early warning, mitigation, and/or disaster relief in Niger. There is a willingness on the part of donors to collaborate and some assistance is coordinated. But, more often than not, donors work independently due to a lack of credibility in GON declarations and management of disasters. The result, despite several multidonor coordinating committees, is an uncoordinated, untimely, and sometimes conflicting response. In the past, several donors have waited for USAID assessments before reacting given that USAID is the only donor with a somewhat coherent mechanism for assessment and response.

One of the DPM objectives is to improve coordination of disaster mitigation and relief by developing a credible system within the GON that donors will buy into. The institutional component of the program will develop the managerial, financial and human capability of the SAP to a level that donors will have confidence and will work through the GON system. By standardizing the GON early warning process and establishing clear thresholds for disaster declaration, the information accompanying GON requests for assistance will be credible enough to allow donors to make rapid decisions. Developing the capability within the SAP to account for disaster assistance resources will encourage donors to commit funds and commodities for mitigating and responding to emergencies.

B. Emergency Fund

A major component of the DPM Program is a special fund to be used for financing emergency relief and mitigation activities. The mechanism for the creation of the fund is a nonproject assistance cash transfer to the GON. The cash transfer will be linked to the successful satisfaction of institutional and policy changes defined as conditions precedent, clearly specified in the grant agreement and agreed to by both parties. Although the Emergency Fund will be constituted from a cash transfer from USAID, the fund itself is conceived of as a multi-donor fund and is structured to allow contributions from other parties, though A.I.D. funds will at all times be tracked separately. During the life of the program, however, the fund is not dependent on contributions from other donors. The fund will not work on a revolving or reimbursement basis. Outlays for emergency interventions will result in the reduction and eventual depletion of fund assets.

Objectives of the fund include the following:

provision of monies to finance smaller-scale emergencies and

disaster mitigation activities throughout the life of the program;

establishment of a flexible funding mechanism that can respond in a timely manner to immediate disaster needs; and

creation of a credible system where donors will deposit funds to support GON emergencies.

These objectives will be accomplished through careful management of the NPA cash transfer. A priority task of the DPM COP will be to oversee management and use of the fund.

1. Tranches

The NPA cash transfer will be organized in two tranches. The recommended NPA level is $10 million. Satisfaction of the first tranche conditionalities will result in the transfer of $5 million. The second tranche is scheduled for release midway through the program, following satisfaction of the required conditionalities. Eight percent of the cash transfer will be turned over to USAID for a program trust fund, leaving $9.2 million for the Emergency Fund.

2. Priority Uses and Restrictions

The $9.2 million Emergency Fund will quickly run out of money if priorities and restrictions are not attached. A principal early task of the TA team will be to set limits and criteria for the disbursement of funds to reduce the danger of rapid decapitalization. Certain restrictions are recommended here as guidance for the TA team. Waiver of any of the conditions established would require formal authorization by the Director of the Prime Minister's Cabinet and the Director of the USAID Mission to Niger, or their delegates.

The Emergency Fund should not be seen as the primary mechanism for financing emergency needs. Other U.S. assistance is available for larger-scale emergencies. Also, it is anticipated that other donors and the GON will at least maintain their existing levels of financial support for emergency operations. Currently, various donors are involved in providing assistance. In cases of crop infestation, for example, one donor may provide insecticides, another pay for aircraft personnel or rental, while a third donor may pay for aircraft fuel. This type of multidonor financing is expected to continue. The fund is to be used to complement and complete GON and other donor assistance. In order to help ensure that other sources are tapped before resort to the Emergency Fund, funding requests will be required to verify that other sources are insufficient, unavailable or cannot be mobilized in time to meet the required need.

The Emergency Fund will be used to finance <u>non-recurrent costs</u>

related to the development of disaster preparedness capability, disaster mitigation interventions and emergency relief activities. In these domains, costs may be incurred for commodity purchases or support. Purchases and associated costs of commodities include such items as local foodstuffs, vaccines, fuel for emergency pest control operations and animal feed and fodder. The financing of contracts with private sector transporters and with national and international NGOs for specific relief- or mitigation-related services are all examples of priority uses of the fund. A limited amount of money will be available selectively to pay fuel and travel allowances for GON personnel in support of mitigation and relief activities, including information gathering, monitoring and implementation responsibilities.

Priority will be given to mitigation activities. However, it is expected that a portion of the fund, at least in the first years of the program, will be used to purchase cereals on local and regional markets or from OPVN to distribute as free food aid. Consistent with the focus on smaller-scale emergencies, the fund will be used only for urgent food aid purchases to respond to localized crises, after determination that other mitigation and relief options cannot effectively resolve the problem.

As food assistance is very expensive, a limit of perhaps $2 million a year will have to be set for financing food procurements under the Emergency Fund. Setting a limit on such procurements is necessary in order to prevent the expenditure of all the NPA funds in a single year.

In the case of larger-scale emergencies which would exhaust the program's resources, the use of the Emergency Fund would be reserved to meet essential expenditures linked to disaster relief operations -- not the purchase of foodstuffs. Examples of such expenditures include the handling, transport, and documentation of interventions. Logistical support, fuel and vehicle rental, are often needed to allow for the effective utilization of donor contributions.

Prudent planning anticipates the eventuality of a medium- to large-scale food deficit crisis at some point during the life of the DPM Program. The local currency generated by the NPA cash transfer will not be adequate to meet the financing requirements for medium- and large-scale famines. Mechanisms exist through the U.S. Office of Foreign Disaster Assistance (OFDA) and comparable institutions in other donor countries to mobilize resources for the importation or purchase of large quantities of emergency food commodities. Recourse to international financial and commodity assistance should continue to be made for all emergencies that require substantial inputs.

Although many emergency situations and mitigation activities will likely involve costs of under $50,000 per event, some interventions

may be considerably more costly. This will particularly be the case for employment generating public infrastructure projects. Although the cost of food or wages provided to participants (in keeping with the objective of improving access to food) are generally moderate, substantial costs may be involved in the purchase of materials, supervision, transport and technical services. Construction projects executed by private firms under contract offer the possibility of improving food security while accomplishing social and economic investment priorities. However, they also require a higher level of technical input, as well as materials to be used in construction. Labor-intensive projects such as road maintenance, the construction of public service facilities, and soil and water conservation activities provide opportunities for employment while offering secondary benefits to the community.

The TA team will identify and set a ceiling on mitigation costs to be financed through the Emergency Fund. The financing of proposals in excess of this amount would require the formal authorization of the Director of the Prime Minister's Cabinet and the Director of the USAID Mission to Niger, or their delegates.

It is recommended that the duration of any single disaster assistance event to be financed from the Emergency Fund be limited to six months. Extraordinary situations would require special authorization from the Director of the Prime Minister's Cabinet and the Director of USAID/Niger (see below).

It is also recommended that all restrictions established for use of the fund be applied to any monies provided by another donor that are managed through the Emergency Fund. Waiver of these conditions would require formal authorization by the duly appointed donor representative and the Director of the Prime Minister's Cabinet.

3. Funding Request Procedures

All requests for funding from the Emergency Fund will require the submission of a formal proposal. A simple and pertinent funding request form will be designed early in the Program by the TA contractor, with the collaboration of the SAP staff. The goal will be to keep the funding request process as simple and as fair as possible. Extensive, sophisticated proposals will not be necessary. Structured responses to a limited number of criteria will be required, which may include the following:

verified existence of an impending or actual disaster, and the level of severity (verification may be done either by SAP or DPM staff, or by an objective party acceptable to both SAP and DPM);

verification that no other timely and appropriate assistance mechanism is available;

description and technical assessment of the proposed intervention;

clear estimates of the impact of the intervention in terms of estimated numbers and geographic location of targeted beneficiaries;

technical assessment of implementation capabilities; and

assessment of a local contribution.

Requests for funding will go directly to PSAC, which will have four experts, three GON technical staff and the TA contractor's disaster operations specialist. Upon receipt, the PSAC will review the proposal based on a set of clear and objective criteria established by the SAP staff in collaboration with the TA contractor. After review and verification of the problem, the PSAC will make an action recommendation to the Permanent Secretary as to whether the proposal should be funded or not and recommend a possible source of funding. Funding sources may include: (1) emergency assistance provided by another donor, (2) an ongoing project already working in the area, or (3) the Emergency Fund. In the case of the latter, the Permanent Secretary will consult with the TA contractor COP on disbursement.

It is imperative that succinct, verifiable proposals be submitted, assessed and acted upon with as little delay as possible. Performance in this regard will be monitored by the TA contractor in collaboration with the PSAC. It is expected that the PSAC's review process will make full and judicious use of the SAP Work Group members and specialists from the relevant public services, as well as outside experts.

It is anticipated that proposals will originate from a number of sources, depending on the nature and scale of the emergency in question. Some requests will be made by divisions of central ministries for emergency situations that directly involve them. Other requests will be passed up from arrondissement SAP committees, through the departmental committee and on to the PSAC. In the case of epidemic outbreaks, requests for assistance would be made by the appropriate division within the Ministry of Public Health since a national system of medical supply and emergency assistance exists within that ministry.

In the case of localized emergencies or incipient disasters, requests will be channeled through the department and arrondissement committees. Non-governmental organizations, community groups and local associations may initiate a request. However, these requests should be verified and reviewed by the relevant local SAP structure and then transmitted through the SAP system. To underscore, only requests that are founded upon objectively verifiable indicators of immediate or incipient

disaster will be considered for funding from the Emergency Fund.

4. Financial Accounting System

A first task of the institutional contractor COP will be establishing an accounting system for management of the Emergency Fund. The system must ensure rigorous financial accountability while allowing for the flexibility essential to effective emergency response. The TA COP may set up this system himself or hire a qualified public accounting firm, or equivalent, to design the system. Responsibility for implementing the financial accounting system rests with the TA COP. The system will meet USAID accounting needs by permitting effective tracking of all monies entering the fund and all disbursements.

The system will be designed to allow tracking of other donor contributions to the Emergency Fund as they come on-line. It is anticipated that bilateral and multilateral donor agencies and international NGOs will find it to their advantage to make use of the Emergency Fund to channel resources in support of GON disaster response needs. In so doing, they can reduce their management costs and be assured of receiving a full report on the uses of their contributions. Consequently, the financial accounting system will need to be designed so as to assure participating donors that their own documentation needs can be met.

The TA contractor will negotiate a contract with a local accounting firm to prepare adjusting entries, as needed, and to assist with the production of quarterly financial reports that will be provided to the Director of the Prime Minister's Cabinet, the Director of USAID/Niger, the COP of the institutional contractor and the USAID Controller. This firm, which will be hired by and report to the institutional contractor, will be responsible for the quarterly reports, account reconciliations, the preparation of materials for audit and other professional services, as required. USAID will also contract for two non-federal audits to be conducted during the life of the program.

5. Fund Management

Principal Account. The GON will establish an interest-bearing account at the Nigeria International Bank (NIB) in Niamey for the counterpart funds generated from the NPA cash transfer dollars. This account will be known as the principal account. The GON will have management responsibility for the account, and signatory authority will rest with the Director of the Prime Minister's Cabinet. All withdrawals from the account will require prior written approval from the USAID Mission Director. Funds from the principal account will be transferred to a disaster operations account, which will be opened at the NIB, from which all disbursements under the DPM Program will be made. Local currency will be generated through the conversion of dollars to FCFA at the time the

funds are transferred to Niamey.

Disaster Operations Account. A disaster operations account will be established at the Nigeria International Bank in Niamey. This account will contain transfers from the principal account as discussed above. It is recommended that the local currency equivalent of $500,000 be maintained in this disaster operations account to allow for the financing of smaller-scale mitigation or relief activities without requiring time-consuming requests to senior GON and USAID officials. This will allow for flexibility to respond in a timely and on an as-needed basis to disasters. The disaster operations account will be placed under the direct management of the institutional contractor's COP. All disbursements from the account will require two signatures, that of the TA COP and the SAP Permanent Secretary. Single contracting actions exceeding $250,000 will require prior written authorization by the Director of the Prime Minister's Cabinet and the Director of the USAID Mission to Niger.

Monthly bank statements for both the principal and disaster operations accounts will be sent to the Director of the Prime Minister's Cabinet, the COP of the institutional contractor and the USAID Controller. Funds will be tracked by the financial accounting system as discussed earlier.

In the event that other donors decide to contribute to the Emergency Fund and to profit from the established accounting procedures, their contributions will be deposited into separate accounts in the NIB. Thus, monies from different donors can be tracked and reported on separately. A consolidated financial statement could be provided by the local-hire accounting firm, as desired and needed.

The Director of the Prime Minister's Cabinet and the Director of USAID/Niger will be responsible for the oversight of the Emergency Fund. They will be responsible for all matters related to the management of the Emergency Fund and will have the authority, by mutual agreement, to waive restrictions regulating the use of funds, authorize transfers from the principal account to the disaster operations account, review financial operations carried out under the disaster operations account, authorize contracting actions exceeding $250,000 and carry out other tasks required for the judicious management of fund resources.

The quarterly financial reports prepared by a local accounting firm in conjunction with the TA team will be provided to the Director of the Prime Minister's Cabinet and the Director of USAID/Niger for their review. An outside audit of the principal or the disaster operations accounts may be requested by either of them at any time.

In the event that other bilateral or multilateral donors put money into the Emergency Fund, they will be invited to participate in the

management of the fund. Responsibilities, limitations and authorities of the various participants would be detailed. Donors might also designate an existing participant as their representative. This option will be strongly encouraged so as to limit the complexity of decision-making and assure rapid response to emergency needs.

6. End of Project Use of Funds and Commodities

The DPM Program will be carried out over a five year, four month period with the program and project assistance ending at the same time. Any monies generated from the NPA cash transfer and deposited under the Emergency Fund that remain at the time of program termination will be used by the GON for disaster preparedness, relief and mitigation interventions consistent with DPM principles and practices. Any project- or nonproject-purchased commodities remaining at the end of the program will be used in similar ways. In the event of a follow-on second phase of the DPM Program, USAID will request that monies and commodities remaining from the initial phase be made available for the follow-on activity.

C. Project Assistance

The DPM Program contains a project element that is designed to assist in the achievement of the program purpose. This component, which will be funded directly from the Development Fund for Africa account, includes technical assistance, USAID support, the DRU transition, commodities, training, studies, logistical support, support for the Directorate of Crop Protection and pilot mitigation activities.

1. Technical Assistance

The project will be managed by an institutional contractor selected through full and open competition. The long-term technical assistance (TA) team will consist of four expatriate specialists -- a financial management and administration specialist, who will serve as chief of party (COP); a disaster operations specialist; an early warning and data collection and analysis specialist; and a program development specialist, whose job will include training and setting up monitoring systems. All members of the long-term TA team will be in Niger through PACD, except for the early warning and data collection and analysis specialist, who will be in-country for only the first two years of the TA contract.

The COP will have overall responsibility for the DPM Program and will be directly in charge of procurement, contract management and financial administration, including control of the Disaster Operations account of the Emergency Fund. He/she will be responsible for preparing an annual work plan showing all planned program activities. In the event of a smaller-scale disaster, he/she will

work with appropriate elements of the GON disaster response system to coordinate mitigation and relief efforts for disaster victims. In the case of a larger-scale disaster, the COP will work with the DPM project manager at the Mission -- keeping the GON closely involved -- to activate the financial and human resources needed to meet the emergency.

The institutional contractor will rent office space for the COP and his/her local support staff. This office will serve as headquarters for the institutional contractor and be the chief repository for the TA team's records and documents. The local support staff will consist of an operations assistant, a senior accountant, a clerk/typist, a secretary and three drivers.

The disaster operations specialist, the early warning and data collection and analysis specialist, and the program development specialist will have their offices at the Permanent Secretariat of the SAP and will provide direct, hands-on technical assistance to the GON in their areas of expertise. They will help the GON improve its capacity for responding to both smaller- and larger-scale disasters. In their role as advisors at the SAP, the three specialists will report to the COP and will coordinate their activities with the COP's broader program objectives. The DPM Program will fund the cost of three secretaries for the specialists and provide office equipment and supplies.

One additional long-term technical specialist will be funded by the DPM Program, but will not be part of the institutional contractor's TA team. This person, who will serve as an advisor to the SAP in areas of administration and early warning, is scheduled to start work in June 1992 and will be funded through December 1992 by a buy-in already made to the AID/W FEWS Project. For CY 1993, this SAP advisor will be paid directly from DPM Program funds. This position will terminate on December 31, 1993, with the arrival of the institutional contractor's long-term TA team.

A variety of short-term technical assistance will be provided under the DPM Program. For the six months preceding the arrival of the long-term TA team, which is projected for about January 1, 1994, short-term consultancies (in early warning indicators, thresholds, data collection and analysis, management and mitigation options) will be procured directly by the Mission using DPM Program funding. Once the long-term TA team has arrived in-country, the institutional contractor will arrange for needed short-term TA, including the handling of all travel and support arrangements. Possible areas for short-term technical assistance include setting up an accountability system for tracking funds and commodities, training GON employees in disaster preparedness and contingency plan preparation, improving risk assessment, developing local indicators, and teaching rapid rural appraisal methodologies.

2. USAID Support

USAID support will consist of a U.S. personal services contractor (USPSC) project manager and a local personal services contractor (FSNPSC) project assistant, who will have offices at USAID. The project manager, with the help of his assistant, will monitor program progress, making site visits and meeting on a regular basis with the TA team and appropriate GON officials to discuss program issues. He/she will review the institutional contractor's work plans, examine program vouchers, and assess and comment on reports and other documentation prepared by the contractor. In the event of a larger-scale emergency, the DPM project manager will be responsible for contacting AID/W to obtain technical and commodity support. Commodity and logistical assistance that is provided will be channeled through the strengthened SAP.

3. DRU Transition

The Mission's Disaster Relief Unit will remain in place until the arrival of the DPM long-term technical assistance team on about January 1, 1994. During the 16-month transition period from September 1992 to December 1993, DRU will continue to provide a disaster response capability for the Mission and will facilitate the transfer of disaster relief responsibilities to the DPM Program.

The present Disaster Relief Coordinator will be leaving in December 1992. He will be replaced by the project manager for the DPM Program, who will also formally head DRU until it ceases to exist in December 1993. By being in place 12 months before the arrival of the TA team, the project manager will have time to become fully acquainted with the Mission's current disaster relief response system and will be better able to guide the transition to the new structure that will be set up under DPM. With the phase-out of DRU, the key long-term USAID-funded staff directly concerned with disaster relief will consist of the members of the TA team (initially four people, afterwards three) and the DPM project manager and local assistant.

4. Commodities

Commodities procured under the project assistance part of the DPM Program will include household furniture; office furniture, equipment and supplies; vehicles; construction materials for minor building renovations; and limited critical relief supplies in cases where resources may not be immediately available from the Emergency Fund. This project-funded emergency relief assistance could take the form of medical supplies, agricultural inputs, feed for animals, blankets, tents, fuel and truck rentals. Under no circumstances would project assistance funds be used to buy food.

It is anticipated that limited building renovations may be required

to create suitable work space for the DPM TA specialists who will have offices at the Permanent Secretariat, as well as to improve the work environment of GON employees with whom they will be directly involved. Funds are being included in the budget to cover these office rehabilitation/renovation costs.

5. Training

The DPM Program will finance in-country, regional and overseas short-term training in a variety of formats. In-country, there will be workshops, seminars, conferences, training sessions and study tours for GON officials at the arrondissement, department and national levels on such topics as data collection, processing and utilization; rapid rural appraisal; emergency planning; program development; operations management; and monitoring and evaluation. Secretarial skills will also be upgraded, particularly in the areas of computer use and data processing. A key concept that will be stressed in all in-country training is the need to involve local populations in decision-making and disaster response activities. NGOs/PVOs will be invited to participate in the training sessions that would be most useful to them.

In-country training will be a constant process under DPM due to a steady turnover in GON staff ranks. Training will also be incremental so that people who go back for refresher courses will be introduced to new subjects or more in-depth coverage of topics. Training will be goal-oriented and practical to ensure the transfer of knowledge and the application of new skills. As appropriate and to the extent possible, women will be specially targeted for inclusion in training courses.

Mid-level managers and technicians will be selected to attend workshops, seminars and training courses that are held in the region, particularly in neighboring CILSS countries. They will also participate in study tours and exchange visits in the region or even to other parts of Africa for close observation or on-the-job training in actual emergency operations. One or two senior staff members a year will be sent overseas for specialized training in such areas as emergency planning, operations management and disaster response to specialized centers in France, Belgium, Canada and the United States focusing on emergency assistance. None of the people sent for training will be enrolled in a degree-granting program.

Prior to the arrival of the technical assistance team, training will be provided to key SAP staff, including the SAP's chief finance and administration officer and the head of the PSAC, who will be the SAP's chief disaster operations specialist.

The institutional contractor will be responsible for arranging all training, except for that undertaken before the arrival of the TA team, which will be handled by the project manager. An annual

training plan will be included as part of the institutional contractor's yearly work plan.

6. Studies

The DPM Program will fund a series of studies on topics that will facilitate program implementation. Some of these studies will be initiated before the arrival of the TA team, with the USAID project manager being responsible for getting them started. After the TA team is in place, the institutional contractor will be responsible for drawing up scopes of work for the studies, contracting for the required expertise, and handling all logistics and support for the consultants selected to undertake the work. An annual studies plan will be included as part of the institutional contractor's yearly work plan.

An illustrative list of possible studies follows:

impact of disaster assistance -- the study would closely examine and document the costs and benefits of different forms of disaster assistance, expressed in quantitative terms to the extent possible;

assessment of production and consumption -- current data, calculations and assumptions would be examined to provide insights into what are realistic production and consumption figures for Niger;

cost-benefit and sustainability assessments of land reclamation using self-help and CFW/FFW models -- the study would concentrate on three or four projects and provide precise calculations on all costs and returns;

milling rates -- a definitive study needs to done to determine the percentage of grain lost during milling;

household vulnerability in the pastoral zone -- rapid rural appraisals would be carried out in the pastoral zone to assess production and consumption strategies, coping mechanisms and levels of vulnerability; and

Directorate of Crop Protection -- the study would review the organizational and financial situation of the Directorate of Crop Protection, its actual and potential contribution to disaster mitigation, its preparedness capabilities, and possible alternatives for donor support.

7. Logistical Support

The project assistance component of the DPM Program will provide funding for logistical support -- vehicles, fuel and personnel costs -- to respond to emergencies. In the case of larger-scale

disasters, food or other emergency supplies will come from U.S. and other donor sources outside the DPM Program, but there may well be a need for logistical support to get disaster assistance to affected populations. For smaller-scale disasters, logistical support will normally be paid for from the Emergency Fund. Situations may arise, however, in which financial resources are not immediately available from the fund. In such cases, resources from the logistical support line item in the PA budget could be used to cover vehicle, fuel, personnel and related expenses. On a selected basis, DPM may also cover the cost of fuel and per diem for GON employees undertaking early warning travel that is not in direct response to an emergency.

8. Support to the Directorate of Crop Protection

The DPM Program will continue USAID/Niger's support to the Directorate of Crop Protection to help that organization better monitor and respond to pest outbreaks. Funding will be provided for fuel, per diem, spare parts and the maintenance of communications systems. In addition, training, studies and short-term TA will be used to improve the Directorate of Crop Protection's capacity to use the financial and human resources available to it. Finally, under emergency situations, project funds may be used to provide support for surveillance and/or pesticides in accordance with USAID/Niger's Special Environmental Assessment (SEA) as well as relevant and applicable environmental guidelines.

9. Pilot Mitigation Activities

The DPM Program will support two different types of mitigation activities. The first type will be funded under the nonproject assistance side of the program with money from the Emergency Fund, following established procedures. The second type -- the one being considered here -- concerns mitigation activities of a pilot nature which will receive closer supervision and evaluation. These activities will be selected to represent either particular types of mitigation interventions, implementation mechanisms and/or vulnerable situations. The purpose of these pilot activities will be to determine the relative effectiveness of different types of mitigation interventions in responding to various situations and conditions.

Over the life of the DPM Program, it is anticipated that a total of six pilot mitigation activities will be carried out. Possible activities that might be undertaken include the following:

the provision of subsidized cotton seed or fortified crop residue to herders' associations and pastoral groups; this could be implemented by the Livestock Service;

the carrying out of small-scale food-for-work projects based on village priorities; this could be implemented by village

committees with support from NGOs;

the use of cash-for-work or food-for-work to maintain farm-to-market roads; this could be implemented by private sector contractors with technical supervision from district-level road service personnel;

the establishment of village-based seed loan programs; this could be implemented by NGOs and farmers' associations;

the digging and deepening of wells; this could be implemented by the Association of Nigerien Well Diggers or by private contractors using village labor; and

the conservation of soil and water; this could be implemented by arrondissement technical services with supervision and support from the department level.

D. Impact

1. Outputs

Key outputs from the DPM Program will include:

- Two designated units within the existing Permanent Secretariat of the National Early Warning System (SAP), attached directly to the Prime Minister's Cabinet, that have the functions of early warning and response.

- Clear definitions of roles and responsibilities of members at the various levels and sections of the SAP system.

- An accountability system managed by the GON that effectively accounts for all receipts and use of disaster assistance and that produces credible reports on program performance and evaluation of disaster assistance.

- A national early warning capability that produces reliable and valid information in a timely fashion through the vertical integration of field to national levels. This system will capitalize on local participation in development of indicators and in monitoring socio-economic and environmental conditions. It will use a standardized methodology for assessing vulnerability which promotes use of information at the level where action needs to occur.

- A national capability in disaster preparedness that equips all levels of the SAP structure with strategies to activate in time of emergency including resource inventories and deployment options. A measurable output will be arrondissement contingency plans that delineate actions for specific populations and types of emergency situations. Development of these plans will involve GON staff,

local projects and populations leading to more efficient arrondissement-level planning that should have generalized benefits.

- An integrated national capacity to respond to any type or scale of disaster in a timely and effective manner. The GON will be able to coordinate and manage its own and donor contributions to provide an appropriate response whether it be mitigation or relief.

- Legal basis established and authorized procedures in place for the declaration of and response to emergencies of various types, including food deficits, epidemics, floods, fires and other disasters. The entity will be specified to which authority for the declaration of emergencies is attributed. The powers and limitations of this entity will also be specified regarding authority over material resources, both public and private, and the reallocation of budgetary resources. Guidance will be established and promulgated to regional and national offices on the use of assessment criteria and response thresholds for emergency declarations.

- Funding available through an Emergency Fund that finances mitigation and smaller-scale relief activities in an effective manner. Experience with administering this fund will provide lessons and a model for financing disasters in Niger.

- Delivery of timely and appropriate mitigation and relief actions that involve local populations, both men and women, and respond to the varied emergency situations and needs found in Niger.

- Pilot mitigation activities that are carefully assessed for replicability. These pilot activities will add to the body of knowledge regarding famine mitigation activities in the Sahel which will be of use to other donors and organizations as well.

- GON personnel trained in various aspects of disaster planning and response including methodologies for vulnerability assessment, data collection and processing, risk appraisal/risk mapping, contingency planning, accounting and evaluation.

- Increased donor collaboration that leads to more systematic and timely provision of disaster assistance. This is expected to have an even greater eventual impact on human welfare through increased efficiency in the use of resources to disaster victims.

2. Impact

The program will have an impact at a variety of levels. The people-level impact in such a program is visible and measurable. Emergencies cause human suffering which when alleviated have an immediate and positive impact on people's lives.

a. Impact on Human Welfare

Niger is a disaster prone country by virtue of its geo-physical environment and climatic variability, historical patterns of inequality and degrading resource base. Seasonal food shortages are common across much of the rural sector on an annual basis. Even in good production years such as 1991-92, some 1,739,000 people face food insecurity in 24 arrondissements with 704,000 in the moderate to high vulnerability category (FEWS vulnerability assessment, June 1992).

The impact of an improved early warning, preparedness and response capability will have a direct impact on thousands of men, women and children in Niger who annually face food shortages. The social and psychological costs of food insecurity are enormous. Crop failure results in humiliation in not being able to provide for family subsistence. For others, it may lead to destitution and social dislocation that separates families. Through better preparedness and more appropriate response, the DPM will enable people to be better equipped to meet their subsistence needs.

Because disaster in Niger is most commonly associated with famine, the largest group of beneficiaries will be the rural poor, those most affected by drought-induced food insecurity. However, fires, epidemics and floods hit towns and cities alike and urban famine will become an issue of increasing import as cities burgeon with rural migrants. Epidemics, floods and fires (often city markets) may be of smaller-scale in terms of the total number of people affected but they demand a rapid response and the economic costs can be high to individuals and the local economy in general. Many disasters can be anticipated and can be averted through better preparedness and an appropriate response.

Vulnerability is linked to poverty, and in Niger, as elsewhere, among the poor, the most vulnerable are the women, the elderly, the handicapped and young children -- the social welfare cases of Niger. Social networks and cultural traditions exist for helping the needy. However, there is evidence that such traditions are breaking down in the wake of an ever declining economic situation, increasing population and land degradation making meager resources even more inadequate. The potential impact of the DPM is not just in terms of saving lives of the most vulnerable, the poorest of the poor, but in helping the broader rural population retain sufficient assets to avoid the ranks of destitution.

Because women and members of women-headed households are often among the poorest members of the community, efforts to ease stress and/or to provide equitable relief to those in need will have a direct impact on women's welfare and that of their families. Likewise, women tend to be the most invisible members of society. DPM's focus on local planning and a bottom-up approach to disaster assistance necessitates attention to gender and the roles that

people -- men, women and children -- play at different times during a crisis. Given this focus, women's roles and needs will become visible and enter into the process of setting the disaster assistance agenda. Food-for-work mitigation activities are known to self-target women with a direct impact on children's nutritional levels. Continued attention needs to be paid to ensuring that women's participation in mitigation efforts is positive. Tracking and assessing their role in those types of activities will be one of the objectives of the DPM's monitoring and evaluation efforts.

Famine is a self-perpetuating phenomenon in Niger. Those who lack a harvest, lack seeds to plant the following year. The poor get poorer. They enter the downward spiral to destitution earlier and descend faster. Disaster situations amplify differences in economic status with a differential impact on the poor. DPM's effort in mitigating disasters will have a direct impact on lessening inequalities in the social distribution of rural capital and will work towards reducing the total number of destitute people. Through effective early warning and targeted interventions, large-scale suffering can be averted or diluted and food security ensured for more Nigeriens. In cases where relief is necessary, the DPM will have a direct impact through the more timely, efficient and equitable delivery of aid.

An impact of considerable importance is increased involvement of the victim in disaster prevention and response. Involving populations in local indicator development, disaster monitoring, identifying, implementing and evaluating interventions is a fundamental part of the arrondissememt-level institutional development. It will have a pay-off in the identification and implementation of more appropriate activities. Also, allowing people to be responsible for their own welfare furthers the wider development goal of increasing men's and women's active participation and decision-making in the affairs that affect their lives. Historically, rural populations have provided a large portion of their own relief when disaster strikes. The DPM seeks to build upon and strengthen local structures and positive coping strategies, not to ignore or replace them. Continued attention will be paid to involving and reinforcing local mechanisms rather than replacing them with more expensive and less sustainable external assistance.

b. Impact on Human Capital Development

The DPM will have an impact on human capital development in various aspects. Through food relief and mitigation activities implemented through food- or cash-for-work, nutritional gains will be attained, job skills acquired and/or income levels raised. The mitigation activities as proposed and financed in the DPM Program are not long-term development activities. But, as short-term mitigation interventions, activities such as land regeneration, well digging to irrigate gardens or employment generation might be expected to

have an impact on human development. As mitigation activities reduce income risk, household decision-makers may be influenced to try new technologies, reduce their seasonal migrations and make other positive production and consumption changes. Mitigation activities may be seen as offering new coping options that allow people to more effectively adapt to risks.

In a country such as Niger, where the human resource capability is very limited, assistance in human capital formation has a direct and long-term impact. The DPM Program features various forms of training to build skills among GON personnel, including support and secretarial staff. While much of the training focuses on disaster management skills, the exposure to data processing techniques, new methodologies and ways of thinking will have applications in various domains. Particular attention will be paid to recruiting/training women in order to promote their economic and social advancement. The TA contractors will work as direct colleagues of GON personnel, facilitating informal on-the-job development. The arrondissement planning component which fosters collaboration among services, donors and rural populations may be expected to have an impact on regional and national planning in general.

c. Economic Impact

Difficulties arise in trying to use standard economic analyses in measuring the lost productivity and economic deterioration that occurs during a disaster. For one, data are nonexistent and secondly, costs and impacts are relative -- what may be relatively insignificant in terms of overall economic impact may be total devastation for a family.

In money terms, the damage wrought by a disaster is enormous. Once people have reached the asset stripping stage of a crisis and dispose of productive assets, the social and economic costs of forced migration are great. Dislocation only shifts the crisis to another location and creates economic and socio-political problems at the point of destination. Health crises are likely to flare up in concentrated population centers where episodic diseases quickly spread and poor sanitation facilities aggravate health conditions. The objective of disaster preparedness and mitigation is to prevent such extreme situations from developing, and to assist vulnerable populations to sustain themselves in the home locale. Rural Nigeriens speak of the social dislocation and loss of lifestyles as the most devastating impacts of famine. By building a national capability to better predict, mitigate and respond to disasters, the economic costs to these families and the nation will be reduced.

Through the Emergency Fund, the DPM will have a direct impact on the GON's financial ability to respond to localized emergencies. The GON, in general, faces severe financial problems and does not

have sufficient funds to cover even minimum operating costs (salaries and services). Yet, disasters are likely to continue. Having the financial resources to respond to disasters in a timely fashion is critical and will be a major contribution of the DPM. Likewise, the accounting system set up to monitor the fund is expected to serve as a model applicable to other accounting functions in the country.

DPM will work to help ensure a more rational and efficient use of disaster assistance resources in an economic climate which demands streamlining and efficiency. Donors are ready and willing to provide humanitarian assistance to a disaster-prone country such as Niger, but the current lack of accountability and credibility in GON information and food aid projections has made it difficult for donors to contribute. One of the DPM's main contributions will be helping to establish a disaster assistance system that donors can believe in, resulting in their contributing financial resources that will bolster the GON's disaster assistance account.

d. Impact on the GON

As a result of the DPM, it can be expected that the GON will reach its goal in providing an effective early warning and response function to mitigate and respond to disasters. The nascent early warning capability will be strengthened primarily through development and use of a consistent methodology based on realistic local indicators to be developed early in the program. The GON's SAP mandate will be completed with the addition of a response function that integrates with early warning to deal with imminent disasters in a timely manner. A major impact will be the broadening of the type and orientation of disaster response undertaken in Niger to include and promote mitigation over relief and food aid. Likewise, the DPM will have a major impact through building a preparedness capability in the GON. This is a new area for disaster assistance in Niger that has the potential of averting the need for relief in some cases or at least producing a more efficient management of relief through effective planning. The overall end result will be improved GON services that are more efficient and more widely available.

Furthering the decentralization effort of the GON will be another impact of the DPM. The GON is pursuing a goal of decentralization which will be contributed to through this program. Impact should be most visible at the arrondissement level with the movement of money and decision-making power to the most local level of disaster planning and assistance. But a functioning system is dependent upon vertical integration of all the levels. Through the establishment of a legal framework for disaster declaration entailing authorized procedures, clarification of job responsibilities and procedures and the training of personnel, the GON SAP structure will be capable of integrating its levels to produce more effective and efficient services. DPM's focus on decentralization and

accountability will promote greater transparency and responsibility so that disaster assistance will get to the people for whom it is intended. Reducing the subjective appraisal aspect of the disaster declaration and procedure process will contribute to more equitable use of assistance. This will have an impact on service delivery as well as on other donors, enabling them to support the GON and work through its system.

V. PROGRAM IMPLEMENTATION

A. Implementation Responsibilities

1. Government of Niger

The Office of the Prime Minister will be the official implementing agency for the Government of Niger and, as such, will be responsible for program coordination for the government. The office will collaborate with the various ministries and agencies that have an interest in the DPM Program, following established procedures of the Government of Niger. One of the important tasks of the office will be to ensure compilation and transmission to USAID of evidence attesting to satisfaction of the conditions precedent for each tranche of the cash transfer.

Within the Office of the Prime Minister, the key figure in program implementation will be the Director of the Cabinet. The GON has already designated this position as the official food aid coordinator for Niger, giving it the responsibility of coordinating all donor food assistance. As the highest ranking GON official directly involved with the DPM Program, the Director of the Prime Minister's Cabinet, along with the Director of USAID/Niger will oversee the management of the Emergency Fund. The Director of the Prime Minister's Cabinet and the Director of USAID/Niger will approve the transfer of money from the Emergency Fund's principal account to the disaster operations account and have the right to delegate to the TA team COP the authority to enter into contracts worth more than $250,000.

Within the SAP structure, the entity most involved with the DPM will be the Permanent Secretariat in the Prime Minister's Cabinet which will be responsible for coordinating the implementation of the program. The Permanent Secretariat will be involved with the DPM Program on a day-to-day basis through both the Cellule de Surveillance et d'Alerte (CSA), which works with early warning, and the Cellule de Prévention, Secours et Atténuation des Catastrophes (PSAC), which deals with preparedness, mitigation and relief.

Requests for disaster assistance will originate from the lower levels of the SAP system, in the departments and the arrondissements, or from NGOs/PVOs and community groups. The Permanent Secretariat's PSAC unit will be responsible for receiving the requests, reviewing them and sending those it supports to the Permanent Secretary. The Permanent Secretary, in consultation with appropriate technical advisors, as required, will approve or disapprove the proposed emergency assistance and the PSAC's recommended source of funding for the aid -- the DPM Program, other emergency donor assistance or the use of an existing bilateral or multilateral project.

2. USAID

The General Development Office (GDO) will coordinate program implementation for the Mission. A U.S. direct-hire employee will serve as project officer, watching over program implementation and signing all program documents requiring a direct hire's signature. Day-to-day, hands-on involvement with the DPM Program at USAID will rest with a U.S. personal services contractor who will be hired to work full-time as the DPM project manager. He/she will be helped by a full-time FSNPSC project assistant. Both of these contractors will have their offices at the USAID Building. The USPSC project manager will be responsible for monitoring the policy and institutional reform program and reporting on its progress to USAID/Niger and AID/W; preparing and reviewing with the Government of Niger any changes or revisions in the grant agreement; and coordinating and carrying out any necessary reviews and evaluations to ensure that policy and institutional reforms are properly implemented.

Outside the policy arena, the project manager will prepare the necessary documentation and undertake all required actions to procure needed studies, commodities, training and technical assistance before the arrival of the institutional contractor's long-term TA team. Once the TA team is in place, the project manager, with the help of the local assistant, will monitor the institutional contractor's progress in implementing the DPM Program, making site visits and meeting on a regular basis with the TA team and appropriate GON officials to discuss program issues. He/she will review the institutional contractor's work plans; work with the TA team to determine the kind, and priority, of studies that should be carried out; examine program vouchers; and assess and comment on reports and other documents prepared by the institutional contractor.

In the event of a larger-scale emergency, the DPM project manager will be responsible for contacting AID/W to obtain technical and commodity support and for following up to ensure that the assistance arrives in a timely fashion. He/she will work closely with the TA team and the PSAC to make sure that the emergency assistance is properly delivered and accounted for.

The main responsibility for project management will rest with an institutional contractor, which will field a long-term technical assistance team of four expatriates -- a financial management and administration specialist, who will serve as chief of party; a disaster operations specialist; an early warning and data collection and analysis specialist; and a program development specialist, whose job will include training and setting up monitoring systems. All members of the long-term TA team will be in Niger through PACD, except for the early warning and data collection and analysis specialist, who will be in-country for only the first two years of the TA contract. The institutional contractor will be responsible for providing long- and short-term TA, procuring commodities,

managing program finances, arranging for training and contracting for studies.

For at least the first year of the DPM Program, there will be a full-time FEWS field representative (FFR) in Niger. Paid for by central funds from the AID/W FEWS Project, this FFR will report to the U.S. direct-hire DPM project officer and will liaise with the DPM Program, as appropriate, but will remain separate from it.

The FFR's role will continue to be what it is at present -- collecting and analyzing secondary data on cereal and animal prices, rainfall, trade, economic indicators and agricultural production from GON and other sources and providing the Mission with analysis to help evaluate food security in Niger. USAID will continue to need the FFR's analytical skills as the SAP's early warning data collection and analysis capabilities are not yet fully developed and the Mission is required to do independent assessments of the food security situation in Niger. Though the DPM will be helping the GON while the FFR will be assisting the Mission, it is anticipated that a certain synergy will develop between the program and the FFR with regard to the collection and analysis of early warning agricultural production data. It is also possible that some of the tools and methodologies developed under the FEWS Project could be useful in implementing the DPM Program.

B. Reporting

1. Financial

Cash transfers made to the GON will be deposited in an interest-bearing principal account for the Emergency Fund that will be established at a bank in Niamey acceptable to both parties. This bank will send monthly statements on activity in the account to the Director of the Prime Minister's Cabinet, the Director of USAID/Niger, the COP of the institutional contractor and the USAID/Niger Controller.

An interest-bearing account to handle disaster operations disbursements will be established at a bank in Niamey acceptable to both parties. All expenditures from the Emergency Fund will be made through this account, which will strive to maintain a balance of the equivalent of $500,000 in FCFA. Funds will be transferred, as needed, from the principal account of the Emergency Fund to the disaster operations account. The bank having the disaster operations account will send monthly statements on activity in the account to the Director of the Prime Minister's Cabinet, the COP of the institutional contractor and the USAID/Niger Controller.

2. Implementation of Policy Reforms

Each year, the Government of Niger will send the USAID Director a report stating the policy reforms and institutional changes enacted

up to that time and any other actions undertaken to satisfy conditions precedent, and will provide the relevant official decrees or other documentation in an annex. The annual report will also state the policy reforms and institutional changes concerning the DPM that the GON plans to undertake during the coming year.

The annual report will be used by the Government of Niger and USAID as a basis for analyzing the progress made and problems encountered in the DPM policy reform program. Joint formal GON-USAID reviews of program progress will be held at least once a year. They will provide an opportunity to make necessary adjustments to the program and to develop strategies for improving implementation.

The USAID Director will make the final determination as to whether the necessary conditions precedent for each tranche of the cash transfer have been met. USAID will report to AID/W on compliance thereafter. It will also provide Washington with semi-annual reports on program progress, using data provided by the GON as well as information obtained from its own monitoring of the program.

C. Monitoring

The monitoring plan for the program is based on 1) monitoring of the design assumptions to ensure that the design is valid and to allow for midterm modifications, if necessary, 2) monitoring of the three program components -- institutional development, emergency fund and project assistance, and 3) monitoring of program impact. Gender disaggregated data will be collected where appropriate. The NPA funds transferred to the GON will be monitored through an accounting system established by the institutional contractor in compliance with USAID accounting requirements. The portion of the grant which is reserved for the project component will be monitored using standard AID procedures.

1. Monitoring of Design Assumptions

The key design assumptions are outlined in the Logical Framework (Annex A). USAID program management will use the results of field visits, evaluations, studies and reports carried out for this program and under other auspices to monitor the validity of the design assumptions. USAID semi-annual project implementation reports (PIRs) will continue to assess design assumptions throughout the life of the program.

2. Monitoring of the Program

The USPSC project manager will take the lead role in monitoring the implementation of the DPM Program. He/she will be responsible for monitoring program progress through site visits and regular meetings with the TA team and appropriate GON officials. The project manager is also responsible for assuring GON compliance with the terms of the Program Agreement and timely and adequate

reporting by the TA team. The USPSC project manager will report to a U.S. direct-hire project officer who will also track progress under the program.

a. Institutional Development

Considerable attention in the DPM Program is placed on careful monitoring and reporting of disaster assistance. A particular objective is the establishment of a systematic documentation system within the SAP to 1) account for all commodities and funds received and used, 2) monitor SAP performance and the process of decentralization and 3) provide occasional evaluations to assess results of delivered assistance. Data reported through this system will be used to monitor implementation of emergency assistance, response procedures and end uses of monies disbursed from the Emergency Fund. The occasional evaluations will be conducted by the PSAC, with appropriate input from the TA team, or by an independent agency under contract to PSAC.

The establishment of this management system as a functioning and reliable process serves as an achievement indicator. Both the PSAC staff and the TA contractor's personnel will include members with the monitoring, evaluation and data processing skills needed to ensure achievement of this objective.

b. Emergency Fund

Monitoring of the Emergency Fund is based on past experience in Niger with NPA assistance which has revealed a need for transparency in all NPA financial transactions and for quick and easy access to NPA account information by USAID. To ensure close tracking of NPA funds, monthly bank statements, indicating all account activity, will be received for the two accounts within the Emergency Fund. Monitoring the management of the principal account will be the responsibility of USAID, which has approval authority on all withdrawals from that account. Monitoring of the disaster operations account of the Emergency Fund is the direct responsibility of the TA team's COP.

This system will permit the effective tracking of all monies entering and leaving the fund. A contract will be written with a qualified local accounting firm for the provision of quarterly financial reports and other financial information, as needed. During the program's life, two non-federal audits will be conducted. Other audits may be requested at any time.

c. Project Component

The USAID project manager for DPM will have direct responsibility for monitoring the performance of the institutional contractor. The USAID Controller's Office will provide assistance in regard to financial management issues. Performance of the institutional

contractor's TA team will be monitored and evaluated based on its annual work plan, prepared by the COP, which will detail measurable objectives and implementation procedures. Progress toward achievement of those objectives will be continually monitored by the project manager and any shortcomings quickly identified so that necessary corrective action can be made as soon as possible.

Because training is an important part of the project component and will take various forms, a system for monitoring participation and overall effectiveness of training will be established by the TA program development specialist early in the program's life. Site visits and occasional evaluations by the TA contractor and SAP personnel will serve to indicate levels of skill transfer and the application of new knowledge. Based on feedback and formal assessments, necessary modifications in the program's training plan will be made.

An internal financial management system will be put in place for the DPM's project assistance funds by the TA COP, who will be a finance/administration specialist. He/she will be assisted in this task by a local-hire senior accountant. The institutional contractor's financial system will track and monitor all project cash inflows and expenditures including disbursements from the logistical support line item in the PA budget.

3. Monitoring of Program Impact

See Section IV. D for a discussion of the anticipated impacts of the program.

Monitoring of program impact will be carried out throughout the life of the program. Monitoring of changes in the GON's institutional capabilities to identify and respond to disasters in an effective and timely fashion will be undertaken. Likewise, program impact will be measured by the extent to which appropriate mitigation activities are identified and effectively implemented for varying situations, donor coordination is improved and the Emergency Fund is able to effectively respond to smaller-scale emergencies. The overall end-of-project success of the DPM will be measured by examining the results of the activities undertaken and assessing the information found in a variety of sources including GON reports, evaluations, contractor reports, technical studies, and financial statements and records.

Building institutional capacity as intended in the DPM Program is a long-term endeavor and will require the entire life of the program to accomplish. Various aspects of program impact may not be fully seen until after the DPM has ended, for example, the impact of a national, integrated early warning and response system or the effect of the arrondissement contingency plans on disaster preparedness. Other aspects, such as levels of donor collaboration and effectiveness of the Emergency Fund, should be visible within

the program's life.

People-level impact will be measured through the evaluation of disaster assistance delivery. Beneficiary perceptions of, and reactions to, program actions can be solicited along with the collection of quantitative data on the number and characteristics of participants, timeliness of the assistance and other socio-economic factors indicating people-level impact. Particular attention is to be paid to women -- their participation in, perceptions of, and benefits gained from disaster assistance interventions. The PSAC will undertake occasional evaluations of program results. Decentralized SAP staff are well placed to involve beneficiaries, both men and women, in such evaluations. The project component will finance independent evaluations to measure program impact. One of the studies proposed to be undertaken during the program will examine the costs and benefits of different forms of disaster assistance for different people, with particular attention being paid to women.

A detailed impact monitoring plan, with gender disaggregated data needs fully detailed, will be developed during the first year of the TA team's contract as part of the first annual work plan. The first phase of impact monitoring will establish a baseline as a benchmark against which progress can be measured. Determination of the data needs for monitoring impact will be made by the TA contractor in collaboration with USAID. In addition, the Mission may finance and manage independent surveys and studies to meet internal people-level impact assessment needs. Monitoring techniques may include, but are not limited to:

key informant interviews (e.g., beneficiaries of program interventions, other community members, key GON and donor personnel);

group interviews with victims of a disaster or with rural populations in chronically deficit arrondissements;

secondary data analysis; and

site visits to locations of mitigation and relief activities.

The DPM will also benefit from studies and monitoring activities undertaken by the UNDP/FAO project and the FEWS and AELGA projects.

D. Implementation Schedule

1. Illustrative Implementation Schedule/Release of Funds

Program Grant Agreement signed	8/92
Conditions Precedent to initial cash transfer met	9/93

Conditions Precedent to second cash transfer met	9/94
End of Program	12/97

2. Timing of Activities (Project Assistance Component)

Year One (CY 1993)

- Project Manager and Project Assistant hired (120 p/m, LOP)
- Technical assistance on operation of early warning system (12 p/m)
- Technical assistance to develop local level indicators (6 p/m)
- Technical assistance to define legal status of SAP and basis for disaster management (3 p/m)
- Local contract to establish system for accounting for NPA funds (4 p/m)
- Technical assistance to screen local level development activities in Niger for use as mitigation pilot studies (4 p/m)
- Technical assistance to develop plan for risk/hazard mapping-GIS system (3 p/m)
- Workshop on vulnerability assessment (in conjunction with FEWS, follow-up to FEWS workshop in 1992 - 2 p/m)
- Procurement of TA support commodities, materials and facilities (rental) completed
- Annual Program Review

Year Two (CY 1994)

- Technical assistance Team in place (168 p/m, LOP)
- Technical assistance on local level indicators (3 p/m)
- Technical assistance on legal basis for disasters, for completion of texts developed by GON (4 p/m)
- Study of cereal consumption/milling rates with seminar (14 p/m)
- Technical assistance on evaluation of crop protection management options (4 p/m).
- Identification of pilot mitigation activities (TA Team)
- Completion of national and regional level vulnerability assessment methodology (technical assistance 3 p/m, workshop 3 p/m)
- Technical assistance on risk/hazard mapping (4 p/m)
- Conditions for Disbursement of NPA First Tranche met
- Annual Program Review

Year Three (CY 1995)

- Pilot Mitigation Activities initiated (TA Team)
- Desingation of test arrondissements for development of asssessment/response procedures (TA Team)
- Training/workshops on vulnerability assessment methodology (technical assistance 12 p/m)
- Technical assistance on risk/hazard mapping revisions (4 p/m)
- Conditions for Disbursement of NPA Second Tranche met
- Evaluation
- Audit
- Annual Program Review

Year Four (CY 1996)

- Expansion of assessment/response procedures to additional arrondissements (TA Team, 3 p/m TA)
- Technical Assistance on assessment of disaster assistance impact and workshop (6 p/m)
- Technical Assistance on vulnerability in pastoral zone (5 p/m)
- Technical Assistance for review of Crop Protection options for long term - follow-on to (
- Evaluation of pilot Mitigation Activities (4 p/m)
- Annual Program Review

Year Five (CY 1997)

- Technical assistance on cost/benefit of mitigation and relief assistance (4 p/m)
- Technical assistance on review of vulnerability methodology and local level indicators (TA Team and 4 p/m)
- Evaluation
- Audit
- End of Program Review

E. Cost Estimate and Financial Plan

1. Summary

The DPM Program will consist of two components: a nonproject assistance cash transfer to the Government of Niger which will generate counterpart funds to finance disaster early warning and response activities and a project assistance element to finance technical assistance, USAID support, the DRU transition, commodities, training, studies, support for the Directorate of Crop Protection, and pilot mitigation activities. Disbursement of the cash transfer part of the sector grant will be in two tranches. This dollar resource transfer is contingent upon satisfaction by the GON of specific conditions precedent in the Grant Agreement. USAID will retain eight percent of the total amount of the cash

transfer in the form of a program trust fund to defray costs to A.I.D. related to program management and monitoring, as well as for other program expenses.

It is proposed that dollar resources totaling $10,000,000 be made available to the Government of Niger over the life of the program in the form of a cash transfer, from which will be deducted eight percent of the total funding ($800,000) for a USAID-managed program trust fund. Each cash transfer, after conversion of the dollars into FCFA, will be deposited in an interest-bearing account at the Nigeria International Bank (NIB) in Niamey. This money will form the principal account of the DPM Program's Emergency Fund.

Upon receipt and conversion into FCFA of each of the two tranches of the cash transfer by the Banque Centrale des Etats de l'Afrique de l'Ouest in Niamey (BCEAO/Niamey), the FCFA equivalent of $400,000 will be immediately transferred to the United States Disbursing Officer in Paris for the program trust fund. The remaining funds will be deposited in the principal account of the Emergency Fund at the NIB and will be transferred to the program's disaster operations account, as needed. The DPM will strive to keep a balance of the equivalent of $500,000 in FCFA in the disaster operations account.

The $8,000,000 project component consists of technical assistance, commodities, training, studies and related items, as well as evaluations and audits. Disbursement of funds under this component will not be contingent upon satisfaction of policy reform conditionalities. Financial management of the project component will be the responsibility of the institutional contractor for the long-term technical assistance team. USAID will arrange for two nonfederal audits of the DPM over the course of program implementation. USAID will also be responsible for contracting for and managing a midterm and a final evaluation of the program. The total budget for the DPM will be $18,000,000 over the life of the program.

2. Cost Estimate

The total cost of the Disaster Preparedness and Mitigation Program will be $28,000,000.00. This estimate is based on the assumption that $18,000,000 (e.g. $10.0 million cash transfer and $8.0 million project assistance) will be provided by A.I.D. and $10,000,000 will be contributed by the GON. The total A.I.D. and GON contribution represents 62 percent and 38 percent respectively of total program costs.

Table I presents a summary of estimated costs and a financial plan. This is followed by Table II which describes the projected expenditures of A.I.D. and the GON for each fiscal year. Annex K shows, in detail, a pro forma budget of the estimated project costs. A weighted average of five (5) percent was used as an

estimate of the annual inflation rate for the A.I.D. budget. In preparing the A.I.D. budget, it was assumed that the compounded annual inflation rate for goods and services procured in the United States (75 percent of the A.I.D. contribution and 35 percent of the total program budget) would be five (5) percent, and that the compunded annual inflation rate for goods and services procured in Niger (11 percent of A.I.D.'s proposed contribution and 32 percent of the total project budget would be 10 percent.
Nevertheless, taking into account the relative rate of expenditures, a weighted average of five (5) percent was considered adequate for the annual inflation rate for the A.I.D. budget.

An exchange rate of 230 FCFA was used to estimate the U.S. Dollar equivalent for local currency costs. A contingency factor of 0.04934 was used for the A.I.D. budget to cover unexpected changes in the estimated level of services and to reflect fluctuating exchange rates in Niger. It was also determined that the total A.I.D. contribution would not exceed $18,000,000. This Cost Estimate and Financial Plan reflect sufficient detaild for project planning and current cost estimates. U.S.A.I.D. has determined that the project cost estimates are reasonably firm for the project elements. Thus, the requirement of FAA, Section 611, (a)(1) has been satisfied.

TABLE I
SUMMARY OF COST ESTIMATE AND FINANCIAL PLAN
FOR THE DISASTER PREPAREDNESS AND MITIGATION PROGRAM
($000)

Use of Funds	- A.I.D. - FX	LC	GON LC	SUBTOTAL	-TOTAL- FX	LC	GRAND TOTAL
CASH TRANSFER	10,000	0	0	10,000	10,000	0	10,000
TECHNICAL ASSISTANCE	3,951	594	0	4,545	3,951	595	4,545
TRAINING	100	328	0	428	100	328	428
COMMODITIES	722	75	0	797	722	75	797
STUDIES	379	161	0	540	379	161	540
OTHER COSTS	500	780	10,000	11,280	500	10,780	11,280
EVALUATIONS	225	60	0	285	225	60	285
AUDITS	100	0	0	100	100	0	100
Subtotal	15,977	1,998	10,000	27,975	15,977	11,998	27,975
INFLATION 5%	799	100	0	899	799	100	899
Subtotal	16,776	2,098	10,000	28,874	16,776	12,098	28,874
CONTINGENCY	827	103	0	1,424	827	103	930
TOTAL	17,603	2,201	10,000	30,298	17,603	12,201	29,804

TABLE II
DISASTER PREPAREDNESS AND MITIGATION PROGRAM
EXPENDITURES BY FISCAL YEAR
A.I.D. INPUTS ($000)

	FY 1993	1994	1995	1996	1997*	TOTAL
I. Nonproject Assistance						
Cash Transfer (Emergency Fund)	--	2,300	2,300	2,300	2,300	9,200
(8% to program trust fund)	--	200	200	200	200	800
Total NPA	--	2,500	2,500	2,500	2,500	10,000
II. Project Assistance						
Tech. Assist.	250	1,050	1,050	850	800	4,000
USAID Support	230	230	230	230	230	1,150
DRU Transition	275	--	--	--	--	275
Commodities	250	125	125	125	100	725
Training	50	80	80	80	60	350
Studies	65	65	65	65	40	300
DCP	100	100	100	100	100	500
Mitigation	20	60	60	40	20	200
Evaluations	--	--	100	--	100	200
Audits	--	--	50	--	50	100
Contingency	40	40	40	40	40	200
Total TA	1,280	1,750	1,900	1,530	1,540	8,000
Total Program	1,280	4,250	4,400	4,030	4,040	18,000

* Includes the first quarter of FY 1998. PACD is December 31, 1997.

3. Funding Obligation Mechanisms

It is proposed that the following USAID incremental obligation schedule be accepted in order to ensure forward funding and successful implementation of this program. An initial obligation of $4.5 million will be made in FY 92 and subsequent obligations are planned for FY 93 of $4.5 million, for FY 94 of $5.0 million and for FY 95 of $4.0 million. This approach will strengthen the GON's ability to develope, coordinate and supervise its capabilities in early warning, emergency preparedness and, relief and mitigation activities. It will also enable A.I.D. to provide GON greater budgetary flexibility and a rapid response to the mid-term evaluation planned for the end of year three of the program.

4. Financial Plan

Listed below are the major program components and cost estimates for each element for A.I.D. contribution to the program.

a. **CASH TRANSFER - $10,000,000.00**

b. **TECHNICAL ASSISTANCE - $4,545,000.00**

(1) Long-term Technical Advisors

Approximately 324 person months of long-term advisors will be financed. These include personnel for the DRU Transition team and locally hired USPSC and FSNPSC managers.

(2) Short-term Consultants

Approximately 75 person months of short-term technical advisors will be provided.

c. TRAINING - $428,000.00

(1) Short-term in-country workshops

Approximately 138 person weeks of in-service training will be financed.

(2) In-country Seminars

Approximately 28 seminars will be financed.

(3) Observation Study Tours - (U.S. and third country)

Approximately eight (8) study tours for two (2) weeks will be financed.

d. **COMMODITIES - $797,000.00**

Approximately four (4) vehicles will be financed. Office equipment/supplies/materials including four (4) computers with associated hardware and software, computer/miscellaneous equipment and vehicle maintenance contracts, desks, chairs, file cabinets, calculators, typewriters, photo copying equipment, household furniture/equipment and appliances and communications equipment will be financed.

e. **STUDIES - $540,000.00**

Appproximately 30 studies will be financed.

f. **OTHER COSTS - $1,280,000.00**

USAID will finance the operating cost of the following activities:

(1) Pilot mitigation interventions with NGOs.
(2) Support services from Directorate of Crop Protection
(3) Local Support Costs for the Coordination Unit (e.g. office rent, salaries of secretary, professional office staff, FAAS, USAID Service Center Overhead and chaffeurs.

g. **EVALUATIONS AND AUDITS - $385,000.00**

These funds will finance two (2) planned external evaluations, two (2) non-federal audits, and financial management assessments of NGO's.

5. Methods of Implementation and Financing

The overall financial planning and proposed method of financing for this program are sound. The financial management capabilities of the GON's implementing entities have been reviewed and deficiences and constraints relative to the management of U.S. Government funds were identified during the program design. USAID disbursement of funds under the proposed program will be made by the direct payment method. Direct payments method will be utilized for training, offshore and local procurement of program commodities, NGO grants, evaluation, audit, and contractor support activities. Periodic advances will not be utilized to finance any of the activities envisioned under the program.

The following Table III summarizes the methods of implementation and financing the program activities.

TABLE III
METHODS OF IMPLEMENTATION AND FINANCING
FOR THE DISASTER PREPAREDNESS AND MITIGATION PROGRAM
A.I.D. INPUTS ($000)

TYPE OF ASSISTANCE	METHOD OF IMPLEMENTATION	METHOD OF FINANCING	APPROXIMATE AMOUNT
Cash Transfer	DRA 1/	Direct Transfer	10,000
Technical Assistance	PIO/T - Direct AID Contracts	Direct Payment or Reimbursement	4,545
Training	PIL - Host Country	Direct Payment	
	PIO/P	Direct Payment	
	PIO/T - Direct AID Contracts	Direct Payment or Reimbursement	428
Commodities	PIO/C - Direct AID Contracts	Direct Payment of Direct L/Com 2/	797
Studies	PIO/T - Direct AID Contracts	Direct Payment or Reimbursement	540
Other Costs	PIO/T - Direct AID Contracts	Direct Payment or Reimbursement	1,280
Evaluations	PIO/T - Direct AID Contracts	Direct Payment or Reimbursement	285
Audit	PIO/T - Direct AID Contracts	Direct Payment or Reimbursement	100
TOTAL USAID FINANCING(excluding inflation and contingency)			8,473

1/ Direct Reimbursement Authority
2/ Letter of Commitment

6. Procedures for Cash Transfer

The procedures for the sector grant cash transfer are summarized below:

(a) After the Grantee submits evidence that it has satisfied, and USAID determines that the Grantee has satisfied, the conditions precedent for the initial disbursement of the cash transfer, USAID will notify the Grantee by Program Implementation Letter that the conditions precedent have been met.

(b) The Grantee will open two special interest-bearing accounts at the Nigeria International Bank in Niamey, one for the principal account, the other for the disaster operations account.

(c) Once the two special interest-bearing accounts have been established, the Grantee will submit to USAID a written request for a U.S. dollar cash transfer under the Grant.

(d) Upon receipt of the Grantee's written request for a cash transfer under the Grant, USAID will review such request and promptly notify AID/W (FA/FM/CM) that the conditions precedent have been satisfied and that the Grantee has requested a cash transfer.

(e) Based upon documentation provided by USAID, FA/FM/CM will request the U.S. Treasury to disburse U.S. dollars by electronic transfer to a special dollar account or sub-account in the name of the BCEAO at a U.S. bank of the Grantee's choice (the "BCEAO account").

(f) The U.S. Treasury's instructions to the BCEAO account will require immediate transfer of the dollar amount credit to a special dollar account at BCEAO/Niamey ("the special dollar account"), where the conversion from U.S. dollars to FCFA will take place. Any interest generated by the special dollar account during the period between receipt of the dollar funds and disbursement of the FCFA by the BCEAO/Niamey is the property of the Government of Niger. Any such interest will be used for the same purpose as the principal.

(g) Immediately upon receipt and conversion of the dollars into FCFA, BCEAO/Niamey will transfer the counterpart funds -- 92 percent of the total FCFA equivalent of the dollars going into the NIB account at the BCEAO/Niamey and eight percent being sent directly to the United States Disbursing Officer account in Paris for the program trust fund.

(h) NIB will immediately transfer the funds from its account at the BCEAO to the principal account that the Grantee will have already established at the Nigeria International Bank in Niamey.

F. Procurement Plan

Procurements under the project assistance component will be either through direct A.I.D. contracting or done by the institutional contractor, as appropriate. A direct A.I.D. contract or cooperative agreement will be executed with a U.S. private sector entity or PVO for long-term technical assistance. This same contract or cooperative agreement will provide for the management of the local currency in the nonproject assistance Emergency Fund. Studies not programmed under the long-term contract will be arranged through buy-ins to centrally funded projects or through IQC arrangements. Short-term training will be arranged using

standard USAID/Niger procedures. Gray Amendment entities will be used whenever feasible and appropriate. For any contract with a dollar value exceeding $500,000, at least 10 percent contracting to disadvantaged enterprises is required.

As authorized in the Development Fund for Africa, all training and procurement is planned from Code 935 source and origin. The following procurement plan may be amended during the program implementation.

Item		Estimated Value ($000)	Source	% U.S. Origin
1.	Cash Transfer	10,000	--	--
2.	Technical Assistance	5,230	80	80
3.	Training			
	In-Country Workshops	240	10	10
	Short-Term	110	50	50
4.	Commodities			
	Computers	40	50	50
	Vehicles	100	0	0
	Office Equipment	20	0	0
	Household Furniture	195	100	100
	Office Furniture	50	0	0
	Emergency and DCP Support	1,015	10	10
5.	Studies/Pilot Mitigation Activities	500	80	80
6.	Evaluations	200	100	100
7.	Audits	100	100	100
8.	Contingency	200	--	--
	Total	18,000		

The program intends to buy three four-wheel diesel vehicles capable of driving on unpaved roads and tracks. Vehicles will be obtained for which parts and servicing are available locally. Non-U.S. manufactured vehicles will be purchased as there is no dealer or repair agency for any American-made vehicles in Niger.

Note that considerable procurement of services and commodities is anticipated from Nigerien firms, thus reducing the percentage of

U.S. procurement.

G. Evaluation Plan

The evaluation plan for the DPM Program is designed to provide independent assessment of the program's progress and results. It will provide an opportunity to re-evaluate the underlying assumptions of the program, a particularly critical need given the transitional nature of the government in place at the time of the program design. The program will have two external evaluations during its life: a midterm and a final evaluation. Supplementing these evaluations will be the periodic reviews and assessments carried out by the PSAC, the TA contractor and the financial auditors.

The midterm evaluation, scheduled for Year Three of the program, will assess the progress to date and gauge whether the program is on course and can achieve its purpose. A thorough review of program assumptions will be undertaken given the evolving socio-political situation in Niger. Particular attention will be paid to the functioning of the SAP system and the management and use of the Emergency Fund. The evaluation will identify the reasons (or problems) for the program's achievements (or failures) and propose appropriate means for continuation or corrections. The midterm evaluation will serve as a critical input into improving program implementation, identifying the DPM's strengths and weaknesses and pinpointing areas where corrective action is needed.

The final evaluation, scheduled for Year Five, will provide an assessment of overall program impact and document lessons learned for USAID and the GON. It will assess the contribution of the program to the GON's goal of providing timely and appropriate disaster assistance to people in need. The evaluation will also assess the suitability of mitigation efforts undertaken by the program, the extent of increased donor coordination in the field of disaster assistance and the effectiveness of the Emergency Fund model in managing disaster assistance funds. The final evaluation's lessons learned will provide the basis for USAID's decisions regarding the type and form of future assistance to the sector.

Both the midterm and final evaluations will analyze all aspects of the program, including the roles of the institutional development component, emergency fund and project component in facilitating the institutionalization of a decentralized disaster assistance capability in Niger. During both evaluations explicit assessments will be included that measure the program's progress and impact with regard to disadvantaged populations, including women. Gender expertise will be required in the scopes of work and in selection of the evaluation teams.

H. Audit Plan

The Program Grant Agreement will include audit provisions to protect A.I.D.. The GON will agree to maintain financial documentation, books and records covering the use of dollar funds in accordance with generally accepted accounting principles and practices, consistently applied. This financial information will be available for inspection by A.I.D., or its authorized representatives, at such times as A.I.D. may reasonably require for a period of three years after the date of the last disbursement by A.I.D. under the cash transfer.

The institutional contractor will hire a local accounting firm to prepare quarterly financial reports on activity in the Emergency Fund, program management and implementation costs, and the disbursement of funds for disaster early warning and response operations. In addition, nonfederal audits will be carried out in Year 3 and Year 5 of the DPM Program.

During the course of the program, USAID may choose to call for a compliance audit to review the Grantee's observance of the terms of the policy reform conditions. Also, as with all other projects and programs of the Agency, USAID reserves the right to ask at any time for audits and investigations by the Office of the Regional Inspector General of A.I.D.

VI. SUMMARIES OF FEASIBILITY ANALYSES

A. Economic Rationale

1. Economic Effects of Disasters

A local economy consists of capital and labor which are allocated to production using the natural resources, including land, in a particular area. In the context of economic theory, a natural disaster can be considered a negative natural resource in that it has an effect on output and the production process and is not produced by humankind. It is the presence of people in its vicinity that defines the event as a disaster rather than simply an act of nature. In this sense, a natural disaster is defined as a physical event (drought, flood, earthquake, etc.) that has a strong and negative impact on people. Given the conventional assumptions made about production functions, greater amounts of natural resources tend to raise the productivity of capital and labor and hence to attract capital and labor to an area. Conversely, negative resources tend to repel these inputs. If all other things are held constant, a decrease in resources in an area should result in a decrease in the volume of economic activity in that area. Thus, disasters (if they are considered as negative resources) are equivalent to a rapid decrease in resources and results in lower levels of labor and capital.

a. Savings and Capital Formation

In a subsistence economy, a disaster such as a severe drought can cause a decrease in food availability which, in turn, results in the need to purchase more food than would be the case during a normal year. In such a case, the disaster can cause dissavings (consumption in excess of income) in the subsistence economy by depleting grain reserves and herd size. With a drastic drop in production, there may be no savings in terms of grain stored at the village level. Sales and/or death of livestock can mean that in order to maintain the same capital stock (i.e. herd size in this case), the rate of herd reconstitution will have to equal the rate of loss. Since it takes time to reconstitute the herd, and since the effects of the drought can last up to one year after the actual drought, capital formation in the subsistence economy in terms of livestock would then be negative, and capital formation in the following several years would also be negative.

b. Trade and Balance of Payments

Continuing with the hypothetical example of severe drought (by far the potentially most costly disaster in the case of Niger) and its impact on livestock, such a disaster would affect Niger's export earnings since livestock is Niger's largest agro-pastoral export. At first, the poor pastoral situation could encourage herders to sell their animals. This approach makes economic sense; earlier

destocking assures that cereal can be purchased before cereal prices increase markedly and before animal prices decrease markedly. The increase in volume, however, could be more than offset by deteriorating terms of trade resulting in declining export earnings. Prices could decline markedly depending on the condition of the animals.

Declining livestock export earnings due to the deterioration of terms of trade would increase the trade deficit. Over time, the rate of declining export earnings from livestock and livestock products would increase. The trade deficit could increase further due to increases in food imports. Due to the GON's financial constraints, official grain imports for which the GON would have to pay would not likely increase. Unrecorded imports from neighboring countries, however, particularly from Nigeria through parallel markets, would likely increase. The latter would be financed by private short-term capital flows and consequently would have no effect on the overall balance of payments situation.

c. Rural Income

A disaster such as a severe drought would have two effects on rural income. In addition to the obvious reduction of the overall level of rural income, it would also increase income inequality, with a greater percentage of income among the poor going to food purchases. With production levels for millet and sorghum decreasing by 50% or more due to a severe drought, those fortunate enough to hold assets would begin to liquidate them. The biggest impact of drought on rural income, however, occurs among the poorest who do not have assets to liquidate. An example is given in Annex G about famine survival tactics practiced by farmers ir south-central Niger in the year following the 1984 drought. The combination of livestock sales, loans, food aid, non-agricultural activities and temporary migration allowed almost all of the farm households studied to successfully survive the drought. The scale of their particular coping mechanisms is far greater than those available to a majority of the rural and urban poor who have little to no assets to liquidate.

d. Production

The drought of 1984 pointed out how dependent Nigerien farmers are on timely rains. At less than half normal rainfall, the season was a one-in-forty disaster. Worse yet, a dry spell struck during what is normally the rainiest month, August, when millet, cowpea and peanut flower are at their most vulnerable. Millet, the staple crop, yielded 150 kg per hectare, one-third of its normal yield during that period. Instead of providing enough grain to feed two adults, a hectare yielded less than enough for one. Yet, other crops yielded virtually nothing. Low grain yields were accompanied not only by low hay production, but also by poor pasture growth generally.

From 1985/86 to 1991/92, Niger had an average net millet/sorghum production figure of 1,569,234 metric tons, an average consumption requirement of 1,591,606 metric tons, and an average deficit of 22,371 metric tons. This deficit figure is calculated before both commercial and concessional imports. What is striking from the FEWS/Niger data, however, is that even when national food supplies are nearly adequate, substantial portions of the population suffer from inadequate access to food. The data suggests that localized food shortfalls are recurring and of a chronic nature. Farmers have made up for declining yields per hectare by increasing the area under cultivation. Arable and permanent cropland approximates 3.5 million hectares for millet and 1.4 million hectares for sorghum. With declining yields per hectare, a fragile environment, and 3.4% population growth, demand will outstrip domestic production in even greater numbers over the next several years.

e. Marketing

A recent IFPRI study showed that many Nigerien families are unable to produce enough food to meet their annual consumption needs. The fact that these households have opportunities to earn the necessary income to purchase food demonstrates the degree to which this rural economy is commercialized. Being dependent on the market presents a special problem, however, to those who do not have the production to sell in the market or opportunities to earn off-farm income. Often, these vulnerable groups are located in distant areas where private truckers and traders are unwilling to venture. It can be argued that the availability of grain from Nigeria has prevented Niger's food situation from becoming even more perilous in recent years.

f. Natural Resources

Less than 12 percent of Niger's total land area, 15 million hectares (ha) out of 127 million ha, is considered potentially useful for cultivation. Most of the agricultural land is a strip along the southern border where the annual rainfall varies from 350 mm to 800 mm. Studies in Tillabery Department indicate that the 350 mm isohyet has dropped from 16 to 14 degrees longitude between 1968 and 1984. Outside of this 15 million ha area, available soil resources are too poor and the rainfall too low or too irregular for successful rainfed cultivation, but fairly adequate for extensive livestock production. A significant absence of rainfall has two important consequences: (1) there is no moisture for plant growth; and (2) there is no ground water for drinking or irrigation purposes. Low input rainfed agriculture in Niger cannot assure the three preconditions for sustainable rural development: adequate income, acceptable risk, and a viable mechanism through which future income streams can continue to grow in both volume and stability.

g. Nutrition

Calorie consumption in Niger, like its Sahelian neighbors, is variable according to the season. Calorie consumption tends to gradually fall during the dry season, and reach its lowest point during the rainy season, May to September, before the harvest, when the supply of basic cereals is reduced and the prices are higher. This period requires the maximum expenditure of energy for planting and weeding; thus this is when malnutrition is more likely to occur. Calorie consumption tends to rise following the harvest, although figures for malnutrition before and since 1984 show that acute malnutrition is a serious problem even in years without declared disasters. The economic cost of this pattern is lost productivity.

h. GON Activities and Strategy

Disasters cause both the GON and donors to adapt their programs and activities to the new situation, and to expectations about future disasters. The changes made by GON following the severe drought of 1984 have provided a profound reorientation of their development investments towards the kinds of activities that are consistent with the "preparedness" element of DPM. The shift in national emphasis from large, government-operated projects to community-run, small programs was accelerated by the GON in 1984/85. The drought also led the GON to provide substantial support to natural resources management and environmental restoration and protection programs.

i. USAID/Niger Program

There is no question that donor activities are often disrupted by disasters. Some activities cannot continue, while others are reoriented to mixed results. The 1984 drought provides several examples along these lines. For example, the implementation of the National Cereals Research Project (683-0225) and of centrally funded research projects suffered during the 1984 growing season because of lack of moisture at key times in the growing cycle for rainfed experimental plots. The Integrated Livestock Project (683-0242) was affected by the drought, and the project was reoriented to respond to emergency conditions. In addition, the drought had a mixed impact on the implementation of policy reform under the terms of the Agriculture Sector Development Grant I (683-0246/47). The GON moved expeditiously to liberalize cross-border livestock trade, allowing the export of cattle towards the coast as pastures dried up in Niger. The Nigeria border closing, however, reduced the revenue stream which would be realized from the implementation of this reform.

2. Economic Rationale for Intervention

As the previous section implies, one of the primary economic

rationales for the DPM Program is to assist Nigerien efforts to develop an identification and response capacity to disasters to: (a) minimize the need for vulnerable groups to have to liquidate their assets and in the process, mortgage their futures; and (b) allow the process of development to continue. The point of intervening is to prevent, when possible, the most extreme measures from being taken and to offer some cushion, no matter how limited, to allow vulnerable populations to sustain themselves.

For example, the cost of providing mitigation activities such as commodities, credit, food for work and cash for work is certainly lower than dealing with problems of widespread asset depletion, population dislocation, and destitution that can occur. The need for closer monitoring and response thus turns on the economic argument that bolstering positive coping mechanisms is more effective and less costly in the long run than allowing vulnerable populations to exercise the most extreme options when all their coping strategies have failed. Reducing the level of vulnerability of populations who are most at risk thus makes economic sense.

3. How DPM Will Support This Economic Rationale for Action -- Costs and Benefits

Benefit/cost analysis is a formal comparison of discounted project costs and benefits accruing to a given project. Especially in projects involving public goods, the calculation of social costs and benefits becomes difficult and arbitrary. Likewise, the development of institutional infrastructure and capacity presents difficulties for the calculation of benefit flows resulting from the project. For this reason, the DPM Program calls for a study on the impact of disaster assistance. The study would closely examine and document the costs and benefits of different forms of disaster assistance for different people, expressed in quantitative terms to the extent possible. Internal rate of return analysis is rarely if ever used in this type of context, being conceptually and practically more appropriate to commercial projects.

That being said, benefits from the DPM Program will accrue: (a) as benefits from the costs foregone due to planning and increased response speed and timeliness. For example, timely pesticide applications are more effective than applications delayed by response lags; (b) in the form of returns to additional investment capital generated under the Program through food-for-work or cash-for-work activities, targeted credit, etc.; and (c) as benefits derived from putting in place the institutional infrastructure for disaster mitigation and response within the GON through development and use of a consistent methodology based on realistic local indicators.

Due to our inability to precisely predict the timing and cost of disasters, discounting the costs and benefits of the DPM program is not appropriate. However, by incurring costs earlier rather than

later in the disaster cycle in anticipation of inevitable but not temporally defined occurrences, it can be argued that discounting the costs would favor implementation of the DPM Program.

Benefits will occur with DPM that would not otherwise occur, such as: improved early warning, preparedness and response capability, which will have a direct impact on thousands of Nigeriens who annually face food shortages; increased involvement of the victim in disaster prevention and response; gains in nutritional status, job skills acquired and/or income levels; human capital formation which will then be used to strengthen Niger's institutional capacity to mitigate and prepare for disasters; increased GON ability to respond to localized emergencies and provide effective early warning; and increased decentralization down to the arrondissement level with the movement of money and decision-making power to the most local level of disaster planning and assistance. Without DPM, the incidence of disasters would increase the need to continually modify the USAID/Niger program, which could lead to decreased program effectiveness and impact. Given the crippling effects of disasters as well as the benefits that can accrue from improved preparedness, mitigation and relief capabilities, DPM is a highly beneficial program for USAID/Niger to put in place at the current time. Thus, it is not necessary to attempt to discount the expected value of institutional changes which will occur as a result of this program.

4. Benefit/Cost Comparison - DPM vs. Former Disaster Responses

Since 1966, USAID/Niger has provided approximately $36,161,000 in emergency assistance. Of that total, $49,000 went to control epidemics, $25,000 for urban fire, $35,000 to floods, and $4,700,000 to crop protection. The rest of the funding went to combat drought-related emergencies. Although there is no way to know if severe drought will continue to require the largest part of USAID disaster assistance, an examination of the Mission's previous approaches to drought relief shows that DPM is likely to yield a higher benefit/cost ratio than previous USAID/Niger responses.

USAID/Niger has moved away from the long-held notion that short-term improvements in food security require distribution of food in all cases. During several of the years in which USAID/Niger has provided emergency food aid, official national cereal production has met nearly 100% of Niger's national consumption requirements. Imported food aid was required only because regional deficits were not met from free market reallocations of available stocks due to low purchasing power and the Mission had no other alternative to importing food. DPM will serve to strengthen local capacity to reallocate in-country food stocks from surplus areas to deficit areas.

Based on the Mission's own past food distribution experiences and

those of other donors, the Mission now sees the possibility for, and necessity of, an increasing role for a number of mechanisms that will give DPM the needed flexibility to provide assistance in the most efficient and effective manner possible. DPM provides the GON with a "menu" of options that, when needed, will provide the necessary flexibility to accrue the following benefits that were not possible under previous programs, including: (a) more effectively targeting emergency assistance to areas and people in need; (b) serving to initiate a longer term development effort which builds toward a solution to the problem; (c) strengthening local and regional agricultural markets; (d) encouraging local commercial activities through sustaining disposable income in poor rural areas; and (e) reducing logistical support requirements for food aid delivery.

B. Social Analysis

Rural populations across Niger attest to drought and famine as regular events. Oral histories speak of a major famine about once every 10-12 years. People view these famine years as perceptually different from other years of low production. They are described as years when there was total lack of rain or total devastation by crickets or rats in contrast to years when rainfall was low and/or distribution was untimely. Two major impacts distinguish these declared famine years: forced migration that equates with loss of lifestyle and death. Equally insidious and more constant are the localized, smaller-scale emergencies which, while never reaching the level of a declared famine, cause undue hardship for particular segments of the rural poor.

To deal with drought and climatic variability, Nigeriens have developed over the years a variety of indigenous coping strategies. Many are synonymous with risk minimization strategies found across the Sahel: economic diversification, ecological adaptations, changes in consumption patterns during deficit periods and social strategies which redistribute available resources through the family, clan and age set. The extent to which traditional mechanisms are breaking down or are being replaced by negative strategies is unclear. Certainly, as a food crisis continues, normal coping mechanisms are replaced by increasingly desperate measures: sale of livestock, equipment and land; stealing; begging and migration. What is clear is that coping strategies vary by socio-cultural group, locale and point in the food crisis, and by year, in relation to resources conserved or depleted and conditions of the local economy. Whether locally verified coping strategies can be used in the SAP's early warning system to indicate different levels of stress will depend upon the sophistication of the system. Nonetheless, greater understanding of actual coping mechanisms and their timing and sequencing by different households and individuals in the same community will further the GON's ability to mitigate and respond appropriately to disasters.

1. Program Beneficiaries: The Vulnerable in Niger

Beneficiaries of the DPM Program are current or potential "victims" of a disaster -- drought/food shortage, flood, epidemic, and fire. In a relief mode, the DPM's beneficiaries are those who have reached the destitution stage and can no longer cope. Through its disaster mitigation efforts, beneficiaries of the DPM are people who would fall into destitution if their conditions did not improve. The DPM seeks to help these households conserve their resources and maintain their situation until circumstances change.

By and large, disaster victims in Niger comprise the poorest strata of society. The most vulnerable are households with minimal assets, particularly in terms of land, livestock and labor. This includes the landless sedentary populations (individuals not attached to a village or administrative unit) and pastoralists without viable herds. Within this asset-poor category, women-headed households, pregnant and lactating mothers, children under five, the handicapped and the elderly are particularly at-risk. Other indicators of vulnerability include isolation that restricts access and diversification alternatives. Length of residence may be another vulnerability indicator as it relates to security, access to resources and social networks. Particular interethnic discord may also play itself out in marginalizing particular groups in specific situations. Likewise, access to and the extent of common property resources in providing fuel, food supplements and fodder (both for home-use and income generation) may distinguish levels of vulnerability as such common property resources may be primary sources of livelihood or significant buffers in times of food shortages (e.g., landless Bella woodcutters).

2. Differentiation

Social and economic differentiation is inherent to Nigerien society and necessarily influences access to resources and levels of vulnerability. Nigerien societies are historically stratified according to class, gender, occupation, political position and participation in patronage and gift-exchange networks. All the major ethno-linguistic groups in Niger -- the Hausa, Zarma-Songhai, Twareg, Fulani, and Kanouri -- have traditions of ascribed status. While the abolition of slavery stimulated major social changes, differentiation and inequalities continue. Traditional elites exercise considerable authority within their territories. Freed captives often remain distinct and are physically separate from the dominant ethnic group. Conflicts of interest are not uncommon. Women typically have had little social or political power and, in various areas, are rigidly restricted under Islamic ideology. All these factors will affect who is vulnerable in a given disaster and who is likely to participate and benefit in disaster assistance interventions.

A concerted effort will be needed to integrate women in program

activities since women in Niger have been largely overlooked. Patriarchal and hierarchical patterns are well ingrained. Where appropriate, the program will encourage staffing positions and training slots for women. Likewise, specific targeting of rural women will be necessary, not only as victims but also as participants in identifying and implementing appropriate interventions, since women play different roles than men during times of disaster. Women, children and the elderly are often the only ones present during the dry season when mitigation and relief operations take place given high rates of seasonal migration by men. While the number of women-headed households in Niger is unknown, it is assumed to be significant and increasing due to male migratory customs and divorce rates. Women-headed households are known to be among the poorest in any society and also the most invisible.

As a self-perpetuating phenomenon, famine leads to greater and greater levels of rural differentiation. Poorer households with smaller holdings and fewer resources are more susceptible to stress and begin to suffer earlier when shortfalls occur. The poor resort to early sale of livestock, sell labor, incur debts and borrow at higher interest rates. Simultaneously, the better-off buy livestock at deflated prices, sell or lend grain to needy farmers, and purchase labor at depressed rates. The result is the concentration of rural capital among the wealthier. Any strides in mitigating disasters will help to ease rural inequities.

The SAP recognizes the limitations of basing vulnerability estimates on cereal balance sheets. Rural Nigeriens are not just farmers -- possibly up to 50 percent of rural income comes from non-agricultural sources. Of greater import is purchasing power and market operations. However, identifying, collecting and processing local level socio-economic information will be a challenge. Heterogeneity is the norm across Niger in land, climate, culture, and politics. Not only will early warning demand local verification, but so will the response efforts. What is appropriate for one group in one region, may not be for another group. Thus, the DPM proposes to broaden the response orientation and allow for a mix of mitigation and relief activities using different implementation mechanisms.

3. Participation

The DPM Program places an emphasis on decentralization and involving local populations in identifying and collecting information for early warning, collaborating in preparing preparedness plans and participating in the identification and implementation of appropriate response interventions. The extent to which such decentralization and participation takes place will depend largely on how much control is divested at the central, and each subsequent, level. Participation, as known in development circles, is a largely unknown concept in Niger. While the current political climate bodes well for change and active participation by all,

inherent patterns of hierarchical control and modes of communication are likely to change slowly.

Involving local people, however, in disaster assistance will be critical. Development experts have largely viewed food insecurity as the inability to produce sufficient cereals to meet consumption requirements. However, as found during field interviews, food problems are not just a problem of production. Making food available through food aid to distressed populations or through the production of more food (off-season crops) is not necessarily appropriate or desired by the victim. A flexible approach will be needed that offers creativity in seeking to match mitigation activities with the lifestyles and desires of local populations. In doing so, two absolutes must be adhered to: (1) activities must be technically sound, and (2) they must provide personal benefit to the individual.

Delivery of free food aid is fraught with problems and in Niger there is the common notion that food aid is a gift to which the better-off and the more important have first right. One way in which the DPM proposes to avoid this is to use food- or cash-for-work (FFW/CFW) in famine mitigation. Actual motivation and incentives to participate in FFW or CFW activities are likely to be influenced by a variety of interacting variables. For example, cultural norms related to class and gender differentiated roles will determine who actually participates in which activities. The noble classes disdain manual labor, and in general, men do not carry things on their heads. Upperclass Zarma women may be culturally prohibited from digging in the ground while settled Bella living in same area do. Even when paid in food or cash, people discriminate about what activities they will undertake. This is not to say that modes of behavior are stable and unchanging. Experience shows that in times of distress, people take on roles and tasks they otherwise would reject. Likewise, class, caste and gender divisions will influence modes of interaction and communication patterns in terms of who works with whom, who listens to whom and who hears about an activity. Hierarchical and gender-based patterns control access to specialized information.

An espoused advantage of using FFW/CFW as an implementation mechanism in famine mitigation is that it self-targets the most needy. This is accomplished through setting the wage level at market or submarket rates or using food as compensation that only the poor and women will work for. It should not be assumed, however, that such activities will necessarily reach the targeted beneficiaries. It may be more realistic to assume that FFW activities will not reach everyone in a village unless particular methods are implemented. The International Food Policy Research Institute (IFPRI) analysis of public works projects will shed light on this.

Women as a target group of FFW activities have received considerable attention and highlighted some concern, particularly related to the added burden FFW projects place on them. Because men are often absent on migration during the dry season, are engaged in more lucrative activities (commerce, cash cropping), or have other competing priorities, women are the major participants in FFW projects. Women see participation as a way to increase the family food supply in situations where they have few alternatives. The social costs of women's participation, however, need to be weighed related to the impact on child care, health and the opportunity costs to women's time.

The selection of an appropriate activity and method of implementation, whether it be free distribution, FFW, CFW, self-help, subsidized commodities, credit or a combination of these will depend upon the nature of the crisis, stage of the food crisis being experienced by households, the socio-cultural milieu, the local economy and physical environment. Certainly, in some situations free distribution will be necessary and appropriate (whether it be the distribution of food, feed or agricultural inputs). Involvement of representatives from the various strata or groups in the population may help to ensure that distribution is equitable and that the assistance reaches those most in need. Perhaps the point is not to be so concerned with targeting only the poor as with ensuring that the poor and disenfranchised also receive their share including those who will become destitute if their conditions do not improve.

Of concern to the DPM Program will be the definition of what constitutes an emergency that warrants disaster assistance intervention. Defining a disaster as *a situation when people can no longer cope* requires further precision consistent with the various agro-ecological, economic and social environments found in Niger. Strategies and the ability to cope vary greatly. Further work is needed to determine what is "normal" in these various situations and what constitutes a deteriorating situation of no return. Researchers caution against upsetting locally effective and low-cost means of reducing food deficits by building increased reliance on often less reliable and more expensive support structures provided by governments and relief programs. Since the 1970s food aid has had an impact on the lives of rural Nigeriens. A constant concern must be to ensure that this impact is positive, that dependencies are not built, and that local, positive coping mechanisms are not displaced.

C. Institutional Analysis

1. National Early Warning System

Development of a famine early warning system in Niger began following the drought of 1968-1973 with the establishment of a

national committee to monitor agricultural and pastoral conditions during the rainy season. The committee's objectives included better information for decision makers in the event of a crisis. The committee dissolved after 1977 largely because of a series of acceptable agricultural seasons.

The drought and famine of 1984-85 reawakened GON recognition of the need for a permanent early warning system. An interministerial committee was formed in 1985 to monitor food security and devise a permanent structure for detecting and preventing food crises. In 1988, FAO and UNDP sponsored a mission to study the GON early warning system proposal; CILSS/DIAPER and USAID/FEWS were also engaged in these discussions. In 1989 the National Early Warning System (SAP) was created as a permanent structure in the Prime Minister's Cabinet.

a. SAP Structure and Activities

The purpose of the SAP is to detect and predict crisis situations in the agricultural, socioeconomic, health, and nutritional sectors and to recommend and coordinate action necessary to avert and/or mitigate such crisis situations. The focus thus far, both for the GON and donors, has been on early warning and monitoring. The SAP's experience with disaster assistance/response has been limited to the provision of food assistance through the department and arrondissement levels. Responsibilities for response within the government at the Niamey level have been vaguely defined and have resulted in problems with coordination and responsibility for initiating actions. The SAP has identified a need for assistance to improve coordination and management at all levels of the response system.

The Permanent Secretariat, part of the Prime Minister's Cabinet, serves as the executive unit of the SAP with responsibilities for coordinating the various components and overall monitoring of food security. The Permanent Secretariat is currently composed of a Permanent Secretary, an Agricultural Economist, a Range and Livestock Specialist, a Computer Systems Manager, and a Financial Manager.

A National Committee for Early Warning (CNSAP) was created in August 1989 composed of the Director of the Prime Minister's Cabinet (President), the Secretary General (SG) of the Ministry of Agriculture and Livestock (Vice-president), the SGs of all other ministries and the SAP Permanent Secretary. The CNSAP is the decision making body of the SAP. It is mandated to meet once a quarter and as needed during a crisis though it has actually convened once. This is due to difficulty in calling together high level officials and partly to ill-defined procedures. Decisions have often been made by the Director of the Cabinet and the Permanent Secretary based on informal consultations with members of the committee.

The SAP consists of a series of vertically structured interdependent committees covering all aspects of early warning. These committees are composed of line ministry personnel at the arrondissement and department levels and a group of sectoral committees, again including line ministries, at the national level. The various components of the system continue to be officially created although the overall structure for the SAP has been established in legal text.

The Permanent Secretariate is responsible for establishing indicators, developing a data bank, and publishing regular bulletins on the national and regional food security situation. It is also been tasked with standardizing procedures and methodologies for data collection, processing, and reporting and has recently been involved in soliciting (donor) support to assure the functioning of GON's data collection systems.

Current early warning efforts by the Permanent Secretariat focus on establishing a national level cereals balance sheet and arrondissement level village deficit lists. The cereals balance, is seen as the basis for a decision on whether food aid is needed and, thus, forms the justification for food assistance requests to donors. The village deficit lists serve as the primary targeting mechanism for potential food aid distributions. The cereals balance sheet is based on information from line ministry data collection, conforms to CILSS/FAO guidelines and is comparable to those in other CILSS states. There has been a steady effort by the GON to improve the integrity of the data used but concerns of data quality continue and shed doubt on the utility of the exercise. The village deficit lists are developed by the departmental early warning committees based on information from arrondissement level officials. The Permanent Secretariat uses these lists to calculate potential emergency food needs to support food aid. Due to the lack of a consistent methodology for compiling these village deficit lists and their focus only on cereal production, it is likely that actual food shortages are incorrectly estimated. The Permanent Secretariat staff is well aware of these problems and is working on methodological improvements.

Six Sectoral Work Groups (GTS), covering different aspects of food security, were created in 1990 to synthesize primary data collected by the technical services. The chairs of each group (OPVN and the Ministries of Agriculture and Livestock, Transport and Tourism, and Public Health) form a consultative body called the Interministerial Work Group (GTI) which assists the Permanent Secretariat in synthesizing the information from the work groups.

There has been very little GTI and GTS activity to date. All the texts providing scopes of work for the GTSs have not have been signed due to the changes in the government. Establishment of the national level SAP components also took back seat to the regional level components which needed to be created in time to handle the

consequences of the poor 1990/91 agricultural season.

In order to encourage better GTI and GTS participation, the Permanent Secretariat has begun calling a meeting of the GTI before the publication of every bulletin. At the same time, an unanticipated benefit from the creation of the sectoral work groups has been to add another, well placed, user for the data generated by ministerial statistics services. Reports indicate that results from some of the data collection has become more timely and of higher quality due to pressure from SAP users.

Departmental Food Security Committees (CRSSA) were created in July, 1990; the composition and objectives of each established by departmental decrees in February-March of 1991. The CRSSAs are composed of directors of all the technical services (Agriculture, Livestock, Hydrology, Finance, Health, Social Affairs) involved in collecting data on the indicators monitored by the GTSs.

The departmental decrees outline the following responsibilities for the CRSSAs: identification of zones deficit in cereal production, determination of populations at-risk of food insecurity, estimation of food aid requirements, and establishment of food aid distribution mechanisms. The CRSSAs suffer from high staff turn-over (characteristic of GON personnel policy) and limited resources. Despite a lack of methodology, material, funding, and animation, CRSSAs in Tillaberi, Tahoua, Zinder, and Diffa were operational during the severe food deficits of 1991.

Arrondissement Food Security Committees (CSRSSA) were not originally part of the SAP structure. However, the need for an arrondissement level identification and monitoring of vulnerable populations was recognized early on. The CSRSSAs, when established, are organized much as the committees at the departmental level and their major task is the monitoring of socioeconomic indicators and the management of local level interventions.

The success of the SAP to date has been mixed. The focus thus far has been on developing a monitoring and early warning capacity which has suffered from 1) unavailable or variable quality data, 2) insufficient analytical applications, and 3) lack of operating procedures. A need for crisis management has pre-empted strong institutional development.

The Nigerien nature of the SAP should be highlighted. The system was developed by Nigeriens responding to a recognized need to plan for severe drought and food shortages. The system has become a national institution. With support through the DPM Program, this Nigerien initiative should become more efficient and effective.

b. Donor Involvement

FAO/UNDP. The FAO has provided support for the development of the SAP since November 1990. Funded by UNDP, the FAO assistance totals one million dollars for a two year period ending November 1992. Negotiations are currently underway for a one to two year extension.

The major contribution of the FAO project has been the development of the institutional framework, i.e. assuring the appropriate legal work behind the national, regional, and sub-regional work groups and committees, as well as educating participants about their roles. Technically, progress has been made in establishing, monitoring, and reporting on national level indicators. The FAO approach has been criticized as top down, with most of the resources concentrated at the national level. Indicators, for example, have been established from a national perspective. Reporting, through the bimonthly bulletins, does not address regional or sub-regional needs.

CILSS/DIAPER. Assistance which the European Community has provided to the CILSS, through its Permanent Diagnosis Project (DIAPER), has supported indirect technical assistance to SAP, including some financial support for SAP workshops and some office equipment for the Permanent Secretariat. Current project assistance came to an end in April 1992; the nature of follow-on assistance is not yet clear.

DIAPER's major contribution was a coherent national cereals balance process. The project's focus was primary data collection in the agro-pastoral and market sectors through technical and financial support for the cereal production survey and on-farm stock survey at the Agricultural Statistics Service. It also provided support for rainfall reporting at the Meteorological Service, for cross border trade surveys at OPVN, and for cattle market surveys at the Livestock Statistics Service in collaboration with other donors. Should the project's financial support not be replaced, there will be serious repercussions for the cereal production and cattle market surveys, which cannot be sustained with GON resources.

USAID/FEWS. USAID direct support to the SAP has consisted of technical assistance, donation of a computer system by the FEWS Project, and operational support through a Grant Agreement (LSGA) signed in 1991. The LSGA currently has a value of over one million dollars managed through a buy-in to the AID/W FEWS Project. Grant support has provided funding for travel, training, materials and related early warning activities. On-going activities include providing a full time Technical Advisor at the Permanent Secretariat, vehicles, studies on food security perception and vulnerability assessment methodology development and limited support to CRSSAs.

The major contribution of USAID/FEWS has been to reorient SAP from a dependence on cereals balance as the sole criteria for

determining food needs. Through workshops, field trips, and the FEWS vulnerability assessment techniques, which include an evaluation of socioeconomic access to food, there has been a recognition within the SAP that the assessment of food security requires more than cereal production data.

2. Niger's Disaster Response Capacity

The GON's response to disasters has been ad hoc in nature, with the effectiveness of operations directly related to the frequency and geographical impact of the disaster: larger, or more frequent disasters are dealt with more efficiently than smaller or less frequent emergencies. No preparedness planning, staff training, stockpiling of supplies or establishment of financial reserves for emergencies takes place, with the exception of urban fire control in Niamey and airport safety at Niamey and 4 regional airports. The OPVN food stock is for commercial purchase and not available for emergency food programs unless purchased by a donor.

Operationally, responsibility for emergencies or disasters is allocated to the appropriate sectoral Ministry (e.g., epidemics to Health, grasshoppers to Agriculture). Where the cause or impact do not relate to a specific Ministry (e.g., flooding) or where there is no event-specific agency present (e.g., urban fires outside Niamey), initiating and directing the government response is usually undertaken directly by the senior Ministry of Interior person in the location, using whatever means are available.

The establishment of SAP, with early warning and response planning and management responsibilities, has not resulted in a widespread change in this situation. However, there is a recognition at the national level technical offices for the need to improve the disaster response planning and management of available resources and access to external assistance.

Food shortages present a special case. As described elsewhere, they are managed by a committee structure established to deal with food shortage early warning and response management. This system is relatively new and not uniformly implemented, but has improved local effectiveness in some cases, such as the 1991 food aid operations in Zinder.

The level of interest, intensity of management and allocation of resources by the GON for disasters relates directly to the assumed magnitude and impact of a potential or actual disaster. The most common disaster management method used is "Command and Control," inherited from the post-1974 military government and political culture.

Department and arrondissement authorities have been able to mobilize local resources in response to emergencies and local disasters (e.g., flooding), but this local assistance is usually

reactive and not sustainable for large or long-duration events (e.g., large-scale food shortages). Little attention has been paid to involving victims in the response process as other than labor, and little popular participation in preparedness and response efforts has been reported.

Disaster response tends to be reactive for two reasons. The first is the lack of resources at all levels with which to respond. Most disaster response requirements are never met and often little direct government assistance is provided when compared to the magnitude of an event.

Even when food shortages are predicted there is often a three to eight month delay in the arrival of assistance. Distribution of the delayed assistance is based on conditions at the time the assistance is available (i.e., relief of immediate problems), rather than in anticipation of conditions which might be developing (i.e., mitigation of potential problems).

The second reason involves workloads. Government officials have wide-ranging responsibilities and official obligations despite their lack of resources. The natural tendency, in Niger as elsewhere, is to deal with the most pressing, immediate issues and defer all other problems until they either resolve themselves or become pressing and immediate.

Despite these limitations, Niger has had a fairly good civil service with a relatively good record of responding to disasters. The often expressed need of government personnel in the field is for the means to perform their jobs, usually basic items such as fuel, per diem and clear instructions. With better guidance and a modicum of means, Niger's relatively good disaster response tradition can be continued and strengthened.

3. Nongovernmental Organizations and Disaster Response

a. International NGOs

International NGOs have been active in Niger since the early 1970's. Traditionally, NGOs have focused on development activities in health, forestry, agriculture, bio-diversity, small enterprise development, cooperatives, and rural credit. With the exception of the World Food Program and a few small EDF supported organizations, NGOs have not been involved in importing or purchasing food to support development activities. While several NGOs use WFP commodities, food aid management experience is very limited.

Most NGOs have not been involved in disaster relief except when there have been severe events, such as the 1984-85 drought-food shortage. Response efforts have usually been initiated in an ad hoc manner through a rapid staff-up and a temporary shift in priorities.

CARITAS and the Federation of Red Cross and Red Crescent Societies (which has a regional base and vehicles in Niamey) are the only NGOs which have been consistently involved in relatively small scale disaster assistance, including relief to flood victims, refugees and targeted food assistance in response to poor harvests. These operations are usually of short duration, financed through special external assistance and involve a considerable number of local volunteers.

The focus of international PVOs such as AFRICARE and CARE has been to work in a few regions and in certain sectors, managing projects with a clear development objective. AFRICARE, for example, works in Goure providing technical assistance and resources for watershed development, land reclamation, rural water supply and micro enterprise development. CARE has projects in the health sector in Zinder, in bio-diversity and micro-enterprise in Maradi and a natural resource development and agricultural production project portfolio in the Tahoua Department. These projects are operated in close collaboration with the technical services on the arrondissement level.

With staff on site and local government contacts, PVOs such as AFRICARE and CARE could help respond to local emergencies. Relief activities which complement a PVO's on-going program, such as well construction under the AFRICARE/Goure project or off-season gardening in the CARE/Tahoua activities, could be designed, initiated and managed.

In addition, PVOs might consider expanding program activities where the PVO has experienced a good track record with a particular intervention and the intervention is appropriate to the disaster situation. This point was highlighted by CARE with respect to their rural credit activities. Getting access to credit is a traditional food shortage coping strategy. CARE believes that implementing a project to expand rural credit, based on their on-going activities but in new areas, would be easier to administer than alternatives such as food for work.

The effectiveness of most PVOs is based on their focusing a diverse package of assistance on a relatively limited area. For disaster response this means a PVO can operate an expanded program in its focus area with great advantage. At the same time, the PVO may have no advantage, and could actually face great problems, in initiating a short term program in an area where the PVO has not had experience. This can be minimized through a combination of contingency planning and development of shelf projects incorporating considerations of local conditions, expected relief/mitigation requirements and PVO capacities.

b. Local NGOs

The history of local NGOs in Niger is brief, with the exception of

the Nigerien Red Cross, local NGOs were prohibited until 1988, and it was not until quite recently that they started managing grants from outside donors.

Many local NGOs are only at the stage where they are looking for seed money to open an office. Solidarité Canada Sahel (SCS), a Canadian local NGO support project, recently began providing grants to local NGOs to help them participate in donor financed activities. Currently SCS has 45 NGOs on roster, though only six or seven appear capable of managing grants larger than $50,000.

Local NGOs can play an important role in disaster response, particularly as counterparts with local knowledge for the international NGOs. This has been the procedure used by the Federation of Red Cross and Red Crescent Societies in working with the Nigerien Red Cross.

Little information is available on informal local organizations such as tontines, village associations, unions and professional groups. With adequate support, these informal organizations could play a role in targeting or managing relief and mitigation efforts, particularly at grassroots level.

c. Other International Organizations

International organizations such as the World Food Program (WFP) or UNICEF also provide relevant assistance. In general, UNICEF operates as a sectoral donor in the areas of health and child survival through projects with the GON. They have the ability to provide emergency assistance, in response to problems affecting mothers and children. UNICEF was very active in the 1984-85 drought/food shortage and provided both relief and rehabilitation assistance. As with most other donors, UNICEF's development focus often precludes effective response to small disasters due to the limitations in the early warning, response and accountability systems, as discussed elsewhere.

The WFP manages an annual program of approximately 12,000 mt of food assistance for Niger. Approximately two-thirds of this assistance is provided from U.S. PL-480 sources. Some commodities are also procurred locally. The WFP program is developmental and focuses on Food for Work (FFW) projects under direct GON or donor management. The track record for these programs is varied, with the relative success of the Italian supported FAO Keita project contrasting with a reported large scale diversion of food in other projects. The WFP has also encountered problems with the financing of local operations (to be paid by the GON) and has recently embarked on an experimental commodity monetization program to fund local costs.

The WFP is routinely involved in emergency food assistance operations and acts as the donor's liaison with the GON on multi-

lateral food aid issues. As the WFP relies on donors for commodities, it cannot start emergency food assistance operations without donor assistance. In addition, the WFP operates through GON personnel in the field (e.g., does not run autonomous operations). Thus, the GON's difficulties with early warning, response and accountability affect the WFP's ability to coordinate and provide assistance. Improvements in these areas would have a positive impact on the WFP's ability to provide and manage emergency assistance.

4. Relief and Mitigation Through Work Programs

In famine mitigation, Food for Work (FFW) and Cash for Work (CFW) can enable victims to support themselves when traditional coping mechanisms are critically stretched. In addition to supporting vulnerable populations, the works programs, when properly designed and financed, can also have a developmental benefit through improvements in infrastructure or management of natural resources.

Traditionally, PVOs/NGOs, the GON and the donors have expressed a preference for FFW as a mitigation and relief intervention over free food distribution. In reality, little emergency FFW has been provided in Niger. While local authorities (usually working through development projects) and NGOs are able to identify works sites, food assistance, usually imported, arrives too late for use in the works projects.

Recent IFPRI research suggests that CFW may be as effective as FFW as a mitigation technique depending upon the robustness of the market. Increasing the cash flow in a project site has the added advantage of increasing local demand for food, rather than placing more food on the market through distribution schemes.

The IFPRI work indicates that a well designed FFW or CFW project can be self-targetting toward the poorer segments of the society. In addition, works program participants appear to prefer a mixture of food and cash for payment, apparently in relation to the accessibility of foodstuffs on the local market.

The choice of the most effective means for conducting emergency works programs depends on local circumstances, particularly the availability of cereal on the market, the accessibility of the target area, the size of the population to be assisted, the time of year and the presence of complementary development projects. Critical attention needs to be paid to implementing works programs which are well planned, require little preparation and can be accomplished with reasonable levels of management, oversight and financing.

In addition, the objective of emergency works programs, to provide food or funds to affected populations in response to an emergency, can mean that a long-term development objectives must be made

subsidiary to immediate action. As a result, emergency works programs should be selected based on immediate impact, rather than because of any long-term developmental benefits and should be evaluated accordingly.

Niger's experiences with FFW and CFW is not as extensive as elsewhere in Africa. However, experiences do exist for the SAP and DPM to review and consider.

VII. CONDITIONS AND COVENANTS

A. Conditions Precedent to Disbursement of Project Assistance Funds.

1. First Disbursement

Prior to the first disbursement of project assistance funds under the Grant, or to the issuance by USAID of documentation pursuant to which disbursement will be made, the Grantee will, except as the Parties may otherwise agree in writing, furnish to USAID in form and substance satisfactory to USAID:

a. a statement designating the authorized representative to act on behalf of the Grantee with respect to the implementation of this project, and of any additional representatives, together with a specimen signature of each person specified in such statement;

b. an opinion of counsel acceptable to A.I.D. that this Agreement has been duly authorized and/or ratified by, and executed on behalf of, the Grantee, and that it constitutes a valid and legally binding obligation of the Grantee in accordance with all of its terms.

2. Notification

When USAID has determined that the conditions precedent specified in Section 1. above have been met, it will promptly notify the Grantee.

3. Terminal Date for Conditions Precedent

If the conditions specified in Section 1. above have not been met within 90 days from the date of this Agreement, or such later date as USAID may agree to in writing, USAID, at its option, may terminate this Agreement by written notice to the Grantee.

B. Conditions Precedent to Disbursement of First Tranche of Non-Project Assistance Funds for the Emergency Fund.

The disbursement of nonproject assistance is predicated on the enactment of a series of institutional and policy reforms that support the implementation of the activities funded under the project assistance component and the Emergency Fund.

Prior to the initial disbursement of funds to the Emergency Fund, the Grantee shall furnish to USAID, in form and substance satisfactory to USAID, evidence that the Grantee has:

(1) Established a Special Grantee Account (the principal account of the Emergency Fund), at a banking institution in

Niamey approved by both parties, for the deposit of local currency equivalent to the amount of U.S. dollar disbursements for each cash transfer increment.

(2) Established a Special Grantee Account (the disaster operations account of the Emergency Fund), at a banking institution in Niamey approved by both parties, for the disbursement of funds under the program.

(3) Established a structure within the Prime Minister's Cabinet to coordinate and manage disaster response that includes preparedness, mitigation and relief, parallel and complementary to the current structure for early warning.

(4) Designated an office and an individual authorized to represent the Grantee regarding the management of the Emergency Fund, including responsibility for coordinating GON positions and recommendations with respect to the use of the fund, and provided the name and specimen signature of the authorized person.

(5) Provided legal texts at the ministerial level for the creation of three Sectoral Work Groups for early warning (Agricultural and Livestock Pest Monitoring, Crop Production Forecast and Stock Estimates, and Livestock Market). This will complete the enactment of legal texts for the six Sectoral Work Groups which currently provide information for the National Early Warning System.

(6) Established a plan for institutionalizing an integrated capability in early warning and disaster response for food-related and other emergencies under the Prime Minister's Cabinet. The plan shall describe the coordinating institution within the Cabinet of the Prime Minister, as well as the role of GON entities at the national, departmental and arrondissement levels. It shall include provisions for the monitoring of disaster relief and mitigation activities. It shall describe the anticipated roles of private entities and community organizations.

(7) Provided a draft legal text designating a GON Food Aid Coordinator, and establishing the attributes and responsibilities of this Coordinator in the context of the plan described in Condition (6) above.

(8) Provided a document establishing the legal basis for the declaration of emergencies of various types, including food shortages, epidemics, floods, fires, and other disasters. The evidence shall specify the office or offices to which authority for the declaration of emergencies is attributed and the powers and limitations of the office(s) or entity(ies) regarding the use of material resources, both public and

private, including the reallocation of budgetary resources.

(9) Provided a draft legal text specifying that in the event that the Cabinet of the Prime Minister ceases to exist constitutionally or operationally, the functions of early warning, disaster preparedness and response, the declaration of emergencies, the Food Aid Coordinator and the Emergency Fund, will be attached to a level of government of equivalent authority.

C. Conditions Precedent to Disbursement of Second Tranche of Nonproject Assistance Funds for the Emergency Fund

Prior to the second disbursement of funds to the Emergency Fund, the Grantee shall furnish to USAID, in form and substance satisfactory to USAID, evidence that the Grantee has:

(1) Enacted legal texts, as necessary, to provide a juridical base for the plan proposed in Section B.6 above, for institutionalizing a GON capability for disaster preparedness and response for food-related and other emergencies under the Prime Minister's Cabinet. This will include early warning and disaster response structures at the national, departmental and arrondissement levels.

(2) Provided written procedures to regional authorities for authorizing and encouraging cooperation and mutual assistance at the departmental and arrondissement level with neighboring countries on coordinated management of early warning and response, as appropriate, for disasters, including droughts, pests and epidemics. The cooperation and mutual assistance encouraged under this condition shall be through existing bilateral and multilateral agreements, as appropriate, such as the Niger-Nigeria Commission, Lake Chad Basin Commission, West Africa Economic Commission and CILSS.

(3) Established and promulgated guidance to regional and national offices on the use of assessment criteria and response thresholds for emergency declarations, as the basis for providing assistance for food shortages, floods, fires and epidemics.

(4) Enacted official guidelines and a juridical basis for GON procurements essential for the provision of emergency assistance, including waivers and appropriate abbreviated procedures for contracting and procurement of actions destined to respond to emergencies.

(5) Enacted official guidelines to ensure the rapid mobilization of resources available through regular development programs which would facilitate responding to emergencies (e.g. health supplies or vaccination support).

(6) Not discontinued, reversed or otherwise impeded any action it has taken in satisfaction of any previous condition precedent under this program.

D. Covenants

In addition to policy and institutional reforms, the Program Agreement will contain the following covenants.

(1) Continuance of Actions Taken by Grantee in Satisfaction of Conditions Precedent. The Grantee shall covenant that it will not in any way discontinue, reverse or otherwise impede any action that it has taken in satisfaction of any condition precedent to the Program Agreement, except as mutually agreed to in writing by the Parties.

(2) Commitment to investigate and prosecute allegations of abuse, misuse and non-fulfillment of contractual obligations. The Grantee shall covenant that it will investigate and prosecute, to the full extent of the applicable law, all allegations of abuse, misuse and nonfulfillment of contractual obligations under the Emergency Fund and regarding project-funded logistical and commodity support.

(3) Assignment of Personnel to Program. The Grantee shall covenant that qualified staff will be assigned to administrative units at the national, departmental and arrondissement levels, vested with the authority to plan and implement disaster relief and mitigation activities.

(4) Assignment of Personnel Trained under this Program. The Grantee shall covenant that all GON personnel who receive external training under this program, including technical service agents, will remain in positions directly relevant to the requirements of this program for at least two years after the training; and that GON personnel who receive in-country training will remain in their position or in an equivalent or relevant position for a minimum of six months after the training.

NIGER

DISASTER PREPAREDNESS AND MITIGATION PROGRAM

PROGRAM ASSISTANCE APPROVAL DOCUMENT

(683-0271/0279)

Volume II -- Annexes

June 1992

ANNEX A

Disaster Preparedness and Mitigation Program
Logical Framework

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Program Goal			
Promote greater well-being among Nigeriens through minimizing the negative impact of disasters on economic development	Increased access to food and services Improved health and nutritional status	GON statistics and reports Evaluations and assessments Studies	Natural environmental factors do not deviate greatly from historical patterns. Political and economic environment in Niger will remain sufficiently stable to carry out the program. Local capacities can be effectively mobilized.
Program Purpose	End of Program Status		
To strengthen Nigerien capabilities to assess and effectively respond to disasters	Vertically integrated early warning/ response system institutionalized within the GON, including a specific decentralized capability Appropriate mitigation activities identified for varying situations Improved donor coordination in early warning/response Emergency fund found effective in responding to smaller-scale emergencies	GON reports Financial statements and records Evaluations and assessments Contractor reports Technical studies	GON continues to give priority to improving early warning/ response system. GON continues to support increased decentralization. Donors continue to be interested in collaboration. Nigerien human resources are available/can be developed to meet program needs. Other resources will be available to meet larger-scale disasters.

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Outputs			GON is willing to establish
1. Accountability systems operating for funds and commodities	1.1 Standardized tracking systems for funds and commodities functioning at arrondissement, department and national levels of government	Contractor reports GON reports	legal framework and create structures needed to improve disaster response capabilities.
2. Integrated early warning capability functioning	2.1 Local-level indicators developed 2.2 Decentralized data collection and processing taking place 2.3 Channels for data transmission operating 2.4 Standardized vulnerability assessment methodology being used 2.5 Active participation of local population obtained	Project implementation reports GON legal texts Evaluations and assessments Site visits and interviews Technical studies GON data bases Financial statements	GON willing and able to implement accountability systems. Suitable mitigation activities can be identified. Trained personnel will be in a position to use newly acquired skills. GON and donors can agree on disaster indicators.
3. Preparedness measures in place	3.1 Risk assessments completed 3.2 Resource inventories developed for all arrondissements, all departments and at the national level 3.3 Communication networks established 3.4 Contingency plans drawn up for two departments and four arrondissements		Sufficient capacity exists/ can be developed at the local level to carry out program impelementation.
4. Integrated response capability developed	4.1 Bureau de Prevention, Secours et Attenuation des Catastophes (PSAC) operating effectively 4.2 Arrondissement-level emergency response management functioning 4.3 Arrondissement-level mitigation activity management functioning 4.4 Active participation of local		

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
5. Legal definition and framework for disasters established	5.1 Signed legal texts available laying out authorities and procedures for disasters		
	5.2 Definition of disasters determined, with recognized thresholds		
6. Monitoring and evaluation systems operating	6.1 System for tracking and assessing program mitigation and disaster response activities functioning		
7. Emergency fund established and effectively administered	7.1 Funds disbursed for approved emergencies		
8. Timely and effective delivery of mitigation and relief actions carried out	8.1 # health interventions completed		
	8.2 # free distributions of food, feed, agricultural inputs, etc. carried out		
	8.3 # mitigation activities (food-for-work, cash-for-work, subsidized distributions) undertaken		
9. Pilot mitigation activities tested and evaluated for replicability	9.1 6 pilot mitigation activities carried out		
10. Trained GON disaster personnel in place and functioning effectively	10.1 # GON personnel trained at the arrondissement level		
	10.2 # GON personnel trained at the department level		
	10.3 # GON personnel trained at the permanent secretariat level		

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Narrative Summary	Objectively Verifiable Indicators	($000)	Means of Verification	Important Assumptions
Inputs				
Cash Transfer	Emergency Fund	10,000	Contractor reports and records Financial statements Site visits Evaluations and audits Project implementation reports	Contractor will be selected that can provide strong program management and high-quality technical assistance. Emergency fund will operate efficiently. Food, medicine and other mitigation and relief supplies can be obtained and distributed in a timely manner.
Technical Assistance	Institutional Contractor	4,000		
USAID Support	USPSC, FSNPSC	1,150		
DRU Transition	Technical staff, support staff, support activities	275		
Commodities	HH/office furniture, equipment and supplies, construction materials, medical supplies, agricultural inputs, feed, blankets, tents, vehicles	725		
Training	In-country workshops, seminars and conferences; in-country, regional and Africa-wide study tours; short-term specialized training overseas	350		Appropriate training can be identified and/or developed. Experts are available to carry out studies. Appropriate projects and programs are available for buy-in.
Studies	Studies on local indicator development, vulnerability thresholds, land tenure, milling rates, etc.	300		
Support to the Directorate of Crop Protection	Fuel, per diem, spare parts, equipment.	500		
Mitigation Activities	6 pilot mitigation activities	200		
Evaluations	Mid-term, final evaluations	200		
Audits		100		
Contingency		200		
Total		18,000		

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ANNEX B

682-0271

ACTION: AID INFO: AMB DCM /3

VZCZCNM0087
PP RUEBNM
DE RUEBC #9989/01 1201715
ZNR UUUUU ZZH
P 301711Z APR 91
FM SECSTATE WASHDC
TO RUEHNM/AMEMBASSY NIAMEY PRIORITY 7462/NIGER
INFO RUEHAB/AMEMBASSY ABIDJAN PRIORITY 6174
BT
UNCLAS STATE 139989

RECEIVED
2 May 91 09 44

LOC: 305 647
01 MAY 91 0656
CN: 18256
CHRG: AID
DIST: AID

ACTION: DRU
INFO: DIR:DD
GDO/DD
PDO PROG
CHRON

DUE DATE: 05-09-91

AIDAC

E.O. 12356: N/A
TAGS:
SUBJECT: PID REVIEW: NIGER DISASTER PREPAREDNESS AND MITIGATION PROJECT 683-0271

CABLE

SUMMARY AND BASIC GUIDANCE:

1. EXECUTIVE COMMITTEE FOR PROJECT REVIEW (ECPR) CHAIRED BY AFR/PD DEPUTY DIRECTOR PAUL GUELDI MET ON FEBRUARY 21, 1991, TO REVIEW THE SUBJECT PID. OFFICES REPRESENTED INCLUDED AFR/PD/SWAP; AFR/SWA; AFR/TR/PRO; FVA/PVC; PPC/PB; OFDA; CDIA/USDA; AND GC/AFR. IN SUMMARY, THE ECPR FOUND THE DISASTER PREPAREDNESS AND MITIGATION (DPM) PROJECT AN INNOVATIVE RESPONSE TO THE CHRONIC PROBLEMS OF FOOD SHORTAGES IN NIGER. THE MAJOR ISSUE IN THE PID RELATES TO THE USE OF THE DFA TO ESTABLISH A FUND FOR THE PURCHASE OF FOOD TO MITGATE LOCAL FAMINES. AFTER EXTENSIVE RESEARCH AND A SERIES OF MEETINGS, GC/AFR HAS ADVISED THAT DFA FUNDS ARE NOT INTENDED TO PROVIDE DISASTER RELIEF OR TO PURCHASE FOOD AS PROPOSED IN THE DPM PAPER. A DISCUSSION OF OTHER OPTIONS FOR THE FUND FOLLOWS IN PARAGRAPH 2 BELOW. THE MISSION IS GIVEN AUTHORITY TO APPROVE AND AUTHORIZE THE PROJECT IN THE FIELD. THE TO APPROVE AND AUTHORIZE THE PROJECT IN THE FIELD. THE FOLLOWING GUIDANCE IS PROVIDED FOR THE DEVELOPMENT OF THE PROJECT PAPER AND TO PROVIDE SUGGESTIONS FOR ALTERNATIVES TO THE FUND WHICH THE MISSION MAY WISH TO INVESTIGATE MORE FULLY.

2. ISSUE 1: FUND TO PURCHASE AND/OR PAY COSTS OF DISTRIBUTION OF LOCAL OR REGIONAL STOCKS OF FOOD GRAINS FOR ALLEVIATION OF SMALL SCALE FOOD SHORTAGE SITUATIONS.

DISCUSSION: MOST MEMBERS OF THE ECPR SUPPORTED THE CONCEPT OF THE FUND AS THE INITIAL STEP IN A DEVELOPMENTAL APPROACH TO CHRONIC FOOD DEFICIENCY PROBLEMS. OFDA WAS ESPECIALLY SUPPORTIVE OF THE ACTIVITIES PROPOSED IN THE PID, AS THEY RELATE TO THE OFDA FAMINE MITIGATION ACTIVITY. HOWEVER, AS NOTED ABOVE , GC/AFR HAS ADVISED AGAINST USING DFA FUNDS TO PURCHASE FOOD FOR SHORT-TERM RELIEF, AND THAT MORE APPROPRIATE LEGAL AUTHORITIES TO

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ADDRESS FOOD EMERGENCIES ARE AVAILABLE UNDER SECTION 451 (FOREIGN DISASTER ASSISTANCE) AND THE PL480 PROGRAMS. FFC HAS ALSO EXPRESSED SIMILAR CONCERNS AS A POLICY MATTER. DISCUSSIONS WITH GC/AFR AND OTHER OFFICES HAVE ELICITED THE FOLLOWING ALTERNATIVES WHICH THE MISSION MAY WISH TO INVESTIGATE MORE FULLY FOR ESTABLISHING THE FUND.

A. DEVELOP MULTI-DONOR EFFORT IN WHICH OTHER DONORS PROVIDE OR PURCHASE THE FOOD. ONE MODEL FOR THIS MAY BE THE CEREAL MARKET RESTRUCTURING PROGRAM IN MALI.

B. MONETIZE SECTION 416 OR TITLE III COMMODITIES AND SET UP AN EMERGENCY FOOD AID TRUST FUND MANAGED BY THE A.I.D. MISSION. THE MISSION COULD CONSIDER USING THE LOCAL CURRENCY PROCEEDS GENERATED UNDER A FOOD AID PROGRAM (EG SECTION 416 OR TITLE III) TO FINANCE THE PURCHASE, TRANSPORT AND OTHER COSTS RELATED TO THE PROVISION OF LOCAL OR IMPORTED FOOD TO THE TARGETED FOOD DEFICIT AREAS. THIS WOULD INVOLVE THE INTEGRATION OF DFA AND FOOD AID RESOURCES AND ASSUMES THAT ONE OR MORE U.S. SURPLUS COMMODITIES COULD BE IDENTIFIED THAT WOULD NOT UNDERMINE LOCALLY PRODUCED COMMODITIES.

C. INCLUDE THE PROPOSED FUND AS A NON-PROJECT ASSISTANCE COMPONENT WITH POLICY REFORM MEASURES FOR DISASTER PREPAREDNESS AND MITIGATION (REFORMS MIGHT INCLUDE GOVERNMENT OF NIGER (GON) CONSOLIDATION OF DISASTER PLANNING AND MANAGEMENT RESPONSIBILITIES, COMPLEMENTARY TO CAPACITY BUILDING ACTIVITIES DISCUSSED IN PARA 3) AND ESTABLISH A PROGRAM TRUST FUND WITH THE AGREEMENT OF THE GON. UNDER THIS ARRANGEMENT, USAID MANAGES THE PROGRAM TRUST FUND, WHICH IS ADMINISTRATIVELY SIMILAR TO THE OE TRUST FUND. ALTERNATIVELY, THE MISSION COULD EXPLORE THE USE OF ASIG II COUNTERPART FUNDS FOR THE PURCHASE OF FOOD, AND FOOD FOR WORK OR CASH FOR WORK PROGRAMS.

D. DEBT SWAP THROUGH A PVO, SUCH AS THE IFESH ACTIVITY CARRIED OUT EARLIER. MISSION WOULD USE A.I.D. FUNDING TO FINANCE PVO PURCHASE OF DEBT CURRENTLY OWED BY GON TO FOREIGN CREDITORS. THE VALUE OF RETIREMENT OF THE DEBT IS THEN EXCHANGED FOR DEBTOR COUNTRY RESOURCES TO BE USED FOR DEVELOPMENT ACTIVITIES, SUCH AS THOSE OF THE DPM, BY THE PVO.

E. PVO MANAGEMENT OF FUND - UNDER THIS OPTION, MISSION WOULD SOLICIT FOR A PVO TO IMPLEMENT A.I.D. FUNDED IPM ACTIVITIES INCLUDING MANAGEMENT OF THE FUND, BUT RAISE

OUTSIDE RESOURCES FOR THE FUND.

3. ISSUE 2: DEVELOPMENT AND STRENGTHENING INSTITUTIONAL CAPABILITIES OF THE GON TO MANAGE PLANNING AND DISASTER MITIGATION EFFORTS IN THE FUTURE.

DISCUSSION: MANY OF THE PROBLEMS WITH DISASTER PREPAREDNESS AND MITIGATION IN NIGER RELATE TO THE CONTINUING INABILITY OF THE GON TO COORDINATE THE WIDE RANGE OF AGENCIES (SAPFEWS, AELGA, OPVN ETC.) INVOLVED IN ACTIVITIES RELATED TO DISASTER PREPAREDNESS AND PLANNING. THE PCPR ACKNOWLEDGED THAT WHILE LOCAL PVOS AND COMMUNITY BASED ORGANIZATIONS SHOULD PLAY A ROLE IN DISASTER MITIGATION, THE PUBLIC SECTOR WILL EVENTUALLY HAVE TO MANAGE A NATIONAL DISASTER PREPAREDNESS AND MITIGATION PROGRAM.

RECOMMENDATION: THE PROJECT'S DESIGN AND RELATED VERIFIABLE INDICATORS SHOULD BE TIGHTENED UP TO REFLECT THE ESTABLISHMENT AND STRENGTHENING OF THE GON CAPACITY TO MANAGE DISASTER PREPAREDNESS AND MITIGATION ON A NATIONAL SCALE.

4. OTHER CONCERNS:

A. WID: FINAL DESIGN SHOULD SPECIFICALLY INDICATE HOW THE PROJECT WILL IMPACT ON WOMEN. THE MONITORING AND EVALUATION PLAN SHOULD ENSURE THAT GENDER DISAGGREGATED DATA ARE COLLECTED TO RECORD THE ACTUAL PROJECT IMPACT ON WOMEN AND OTHER TARGETED GROUPS.

B. GRAY AMENDMENT CONSIDERATIONS: MISSION IS EXPECTED TO PROVIDE A MORE EXPANSIVE DISCUSSION ON THE POTENTIAL FOR INCLUSION OF GRAY AMENDMENT ENTITIES IN PROJECT DESIGN AND IMPLEMENTATION.

C. INITIAL ENVIRONMENTAL EXAMINATION: THE BUREAU ENVIRONMENTAL OFFICER HAS NOTED THAT THE IEE IS SATISFACTORY IN TERMS AND CONDITIONS FOR THE USE OF PESTICIDES, BUT NOTES THAT THE IEE WILL NEED TO BE REVISED TO ADDRESS ANY CHANGES IN THE PROJECT PAPER THAT WILL HAVE POTENTIAL ENVIRONMENTAL IMPACT SUCH AS THE IMPROVEMENT OF TRANSPORTATION LINKS.

D. GON CONTRIBUTION: IF THE HOST COUNTRY CONTRIBUTION IS LESS THAN 25 PERCENT, A WAIVER WILL NEED TO BE INCLUDED IN THE PROJECT AUTHORIZATION. SUCH A WAIVER COULD BE JUSTIFIED ON THE GROUNDS THAT NIGER IS A RELATIVELY LEAST DEVELOPED COUNTRY. PLEASE CONSULT HB 3, APPENDIX 26, AND THE RIG ON THIS MATTER.

E. PROJECT PAPER DESIGN CONSIDERATIONS:

(1) GON ROLE: IF THE PROJECT IS TO ACHIEVE THE DESIRED INSTITUTIONAL OBJECTIVE, THE GON WILL NEED TO BE HEAVILY INVOLVED IN THE PROJECT'S DESIGN, INCLUDING THE POLICY/INSTITUTIONAL REFORMS LIKELY TO BE CALLED FOR. THE MISSION SHOULD ALLOW ADEQUATE TIME TO INSURE THE HOST

GOVERNMENT IS APPROPRIATELY ENGAGED AND COMMITTED TO THE REFORMS IN QUESTION.

(2) AID/W ASSISTANCE: THE PID CALLS FOR A STAFF MEMBER OF THE NEWS CONTRACT TEAM, WASHINGTON OFFICE TO PROVIDE SOME ASSISTANCE IN INTEGRATING ON-GOING DISASTER MITIGATION EFFORTS UNDER THE PROPOSED PROJECT. AN OFDA STAFF MEMBER TDY IS ALSO SUGGESTED FOR COORDINATING EFFORTS WITH POTENTIAL OFDA-MANAGED DISASTER PREPAREDNESS ACTIVITIES IN THE REGION. AID/W WILL MAKE EVERY EFFORT TO PROVIDE THE DESIRED ASSISTANCE. PLEASE COORDINATE WITH THE SAHEL DESK IN FINALIZING THE WORKSCOPES, FUNDING, AND, TIMING FOR DESIRED AID/W ASSISTANCE. EAGLEBURGER
DT
#9585

NNNN

ANNEX C

MEF/CMA
REPUBLIQUE DU NIGER
CONSEIL MILITAIRE SUPREME

MINISTERE DES AFFAIRES ETRANGERES
ET DE LA COOPERATION

DIRECTION AMERIQUE-ASIE -OCEANIE

N° 05114/MAE/C/DAMAO

Niamey, le 01 JUIL. 1992 FRM 1

Le Ministère des Affaires Etrangères et de la Coopération de la République du Niger présente ses compliments à l'Ambassade des Etats-Unis d'Amérique et a l'honneur de lui demander de bien vouloir exprimer à l'USAID et l'équipe chargée de la formulation d'un Programme de Prévention et d'Atténuation des Catastrophes au Niger (PSAC), toute l'appréciation des Autorités Compétentes Nigériennes et du Comité National du Système d'Alerte Précoce.

Le but du PSAC étant de doter l'administration Nigérienne des moyens institutionnels, matériels et financiers conséquents et développer ainsi des capacités internes pour faire face aux catastrophes, ce programme constitue une priorité pour le Gouvernement Nigérien.

A cet effet, les Autorités Nigériennes attachent un intérêt tout particulier à l'aboutissement de ce programme et demandent par conséquent aux Autorités Compétentes de l'USAID de tout mettre en oeuvre pour la réalisation de ce projet combien important pour le Niger.

Le Ministère des Affaires Etrangères et de la Coopération de la République du Niger remercie l'Ambassade des Etats-Unis d'Amérique de sa constante collaboration et saisit cette occasion pour lui renouveler les assurances de sa haute considération.

AMBASSADE DES ETATS-UNIS D'AMERIQUE

NIAMEY

224354

. ANNEX D

REVISED INITIAL ENVIRONMENTAL EXAMINATION
or
CATEGORICAL EXCLUSION

PROJECT COUNTRY: Niger

PROJECT TITLE: Disaster Preparedness and Mitigation Program (683-0271) & Project (683-0279) -- DPM

FUNDING: FY(s): 1992-1998 (PACD: 12/31/97)
US$: 18 Million (10 million in Program Assistance, 8 million in Project Assistance)

IEE PREPARED BY: Walter I. Knausenberger, AID/AFR/ARTS/FARA Environmental Advisor, and Idrissa Samba, REDSO/WCA Regional Environmental Advisor

ENVIRONMENTAL ACTION RECOMMENDED:

Positive Determination	:	_____
Negative Determination	:	____XX____ with Conditions
Categorical Exclusion	:	____XX____
Deferral	:	_____

SUMMARY OF FINDINGS:
The Niger DPM has two main non-project assistance (NPA) components: (1) involving policy and legal reform, institutional development, and (2) an Emergency Fund, as well as a companion project assistance component. These DPM components have a common purpose of strengthening Nigerien capabilities to assess, mitigate and successfully respond to disasters. The Program goal is to minimize the negative impact of disasters on economic development. Through a cash transfer, the Emergency Fund will allow for disaster early warning, preparedness, mitigation and effective relief. Project funding will provide for long- and short-term technical assistance, USAID support, commodities, training, studies, support to the Directorate for Crop Protection, pilot activities for disaster mitigation, and evaluation and audits.

Project Assistance (683-0279): The training, studies, evaluations, audits and technical assistance planned within the project assistance component (683-0279) are recommended for Categorical Exclusion under Sections 216.2 (c)(2)(i) and (iii) respectively of 22 CFR (Reg 16).

Regarding "Support to the Directorate of Crop Protection" and any activities which may be carried out having a bearing on pesticide procurement or use, be they direct or indirect, Program- or Project-funded, for preventive control or crop protection purposes, a Negative Determination with conditionality is recommended. The condition applied in this case is that any pesticide use (including activities supporting such use, such as fuel for survey aircraft or vehicles) will occur during the Disaster Relief Unit's (DRU) transition year (1993) in connection with a buy-in to the Africa Emergency Locust Grasshopper Assistance (AELGA) project (698-0517). The AELGA project has provided for a Reg 16-mandated Programmatic Environmental Assessment (PEA) for Grasshopper and Locust Control, and a Niger-specific Supplemental Environmental Assessment (SEA), previously prepared and approved. The SEA provides for the necessary monitoring and pesticide impact mitigation activities to be initiated at country level. During the transition year, the USAID DPM Project Manager

will determine with the GON which components of the SEA will be incorporated into the DPM program implementation, and how elements may be coordinated with related initiatives of the GON and other donors.

The contingencies and non-pesticide commodity purchases are recommended for a Negative Determination in line with Sections ~~216.3(a)(2)(iii) and (xiv)~~ 216.3(a)(2)(iii). Commodities include office and household furniture, office equipment and supplies, construction material for building refurbishment, medical supplies, agricultural inputs, feed, blankets, tents, fuel, vehicles, and spare parts and limited replacement of related equipment.

Program Assistance (683-0271): Within this component, the Emergency Fund, food aid, relief services, and pilot mitigation activities including the cash-for-work and food-for-work components, are all recommended for a Negative Determination under 216.3(a)(2), with the provision that an Environmental Impact Review be carried out during the first year of program implementation. This review will identify potential for long-run environmental impacts which might otherwise go unanticipated or unexamined (such as possible food-aid related natural resources degradation). It will also provide for appropriate monitoring and minimization of reasonably foreseeable negative environmental impacts by the GON, within the context of the overall monitoring and evaluation program.

Counterpart funds that will be used for public and private sector and PVO/NGO services, purchases and associated costs related to crop protection, such as fuel for emergency pest control operations, are recommended for a Negative Determination, with the condition that a plan be developed for incorporating appropriate provisions of the above-mentioned Niger SEA in the GON crop protection and production forecasting activities (e.g., for minimization of pesticide impact, avoidance of environmentally sensitive areas, and improved control decision making).

The policy, legal and institutional reforms under the Program Assistance component are recommended for Categorical Exclusion under Sect. 216.2 (c)(2)(xiv) because these reforms, as such, are not expected to directly affect the environment. However, the Environmental Impact Review and SEA plan mentioned above should examine these institutional and policy changes to ascertain the extent to which significant environmental impact, if any, might occur, and how it should be dealt with by the GON and USAID.

CONCURRENCE:

Bureau Environmental Officer: **APPROVED:** ✓

DISAPPROVED: _____

DATE: 9/24/92

CLEARANCE:

GC\Africa: _____ **DATE:** 24 Sept 92

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Initial Environmental Examination Narrative

1. Program Summary

The Niger Disaster Preparedness and Mitigation Program[1] (DPM - 683-0271), a sector grant with a discrete project component (683-0279) is a five-year (PACD 12/31/1997), $18 million effort designed to improve and integrate the disaster early warning, preparedness, planning and response capabilities of the Government of Niger, while reinforcing local capabilities through decentralization. A $10 million non-project assistance component will include policy, legal and institutional reforms and will establish the Program's Emergency Fund through local currency generated by cash transfers. This fund will be used to respond to smaller-scale food shortage-related disasters (primarily for purchase and distribution of locally-produced food grains), and to the extent possible, will promote mitigation interventions over direct relief. Locally-produced cereals to be procured under the project may be programmed by Private Voluntary Organizations (PVOs) as food-for-work (FFW) or cash-for-work (CFW) in disaster zones.

An important aspect of the Emergency Fund is its conception as a transparent fund to encourage multi-donor participation as a result of DPM-mandated strengthened financial control and efficiency of program delivery by the Nigeriens. A $8 million project assistance component will finance long-term technical assistance, USAID support, the Disaster Relief Unit transition, commodities, training, studies and short-term technical assistance, logistical support, support to the Directorate for Crop Protection, pilot activities for mitigation and evaluations.

The DPM Program and Project will incorporate selected activities similar to those currently managed as a buy-in to the African Emergency Locust and Grasshopper Assistance (AELGA) project and covered by the Supplemental Environmental Assessment (SEA) for that project. These activities include appropriate support to the Directorate of Crop Protection to help rationalize crop protection decision making. This will be in the form of short-term technical assistance and training, maintenance of communication systems, surveying (e.g., aircraft rental for surveillance and characterization of infested areas), commodity assistance (e.g., greenness maps, fuel, spare parts for Crop Protection Service). Any emergency pesticide use, whether directly or indirectly funded by the NPA or project assistance components, will be under the terms and conditions of the Programmatic Environmental Assessment (PEA) and the Niger Supplemental Environmental Assessment (SEA) for the AELGA project, and will conform to the pesticide procedures set forth in A.I.D. Regulation 16 (22 CFR Sect. 216.3 (b)).

2. Conditions Precedent to Disbursement

The disbursement of non-project assistance under the DPM is predicated on the enactment of a series of institutional and policy reforms that support the implementation of the activities funded under the project assistance component and the Emergency Fund. Prior to disbursement of project assistance funds, the Grantee is to designate an authorized representative, and to ratify the Agreement as a legally binding obligation in accordance with all its terms.

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[1] Programme de Prévention et d'Atténuation des Catastrophes au Niger

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The institutional and policy reforms sought include, in general terms:

a) establishing a structure within the Prime Minister's Cabinet to coordinate and manage disaster response, including preparedness, mitigation and relief activities;

b) establishing a plan and promulgating legal texts for institutionalizing an integrated capability under the Prime Minister's Cabinet in early warning and disaster response for food-related and other emergencies;

(c) establishing the legal basis for the declaration of emergencies;

d) establishing and promulgating guidance on the use of assessment criteria and response thresholds for emergency declarations; and

e) establishing official guidelines and a judicial basis for GON procurement essential for the provision of emergency assistance.

The generated counterpart funds will be used for purchases and associated costs of commodities, including such items as foodstuffs, fuel for emergency pest control operations and animal feed and fodder. Counterpart funds will finance contracts with private sector transporters and with national and international non-governmental organizations for specific mitigation- and relief-related services. A limited amount of funding will be available on a selective basis to pay fuel and travel allowances for GON personnel in support of mitigation and relief activities, including information gathering, monitoring and implementation.

3. Key IEE Issues and Impact Mitigation Concerns

A. Background

Environmental Consequences of Policy Reform: Section 496 of the Foreign Assistance Act, setting out the terms of the Development Fund for Africa, requires that institutional and policy reforms "shall also include provisions to protect...long-term environmental interests from possible negative consequences of the reforms."

This requirement of the DFA calls for an analytical consideration of the kinds of policy reforms which are likely to have an impact on natural resources and environmental management in the longer-term. Meeting this requirement of the DFA is a particular challenge in this case because a) not only can little be definitely known regarding the long-run impact of policy reform, but b) the sorts of policy and institutional changes mandated by the Niger DPM represent an innovative approach towards strengthening institutional capacity to anticipate and mitigate the impact of food-related and other emergencies on the people. Thus, because of the relief and rehabilitation focus of DPM, it is even more difficult than usual to determine where and to what extent environmental impacts (positive or negative) may arise from interventions supported under this program. This has bearing upon the issue of developing strengthened linkages between disaster prevention and mitigation and sustainable agriculture and rural development.

The particular task the DPM Program sets itself is to relate development assistance to disaster relief and mitigation in a vulnerable country chronically stricken by emergencies. The overriding factor is the negative

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impact disasters have on development and economic growth. With the emphasis on mitigation and rehabilitation, it is especially critical that the mitigation interventions engaged in under the DPM optimally reinforce natural resources management and other development assistance programs which have a longer time line. There is a need to avoid ad hoc relief and rehabilitation measures which are not linked to other change.

Thus, the focus of this IEE is upon the potential and actual short- and longer-term environmental impacts which can reasonably be considered to be linked to or derived from DPM interventions. The extent to which these interventions might contribute either to degradation or rehabilitation of the environment and natural resources base needs to be assessed and anticipated. Then environmental impact mitigation measures need to be taken, preferably by resident technical expertise.

Crop Protection and Grasshopper/Locust Management: Niger's most pressing needs regarding disaster interventions relate to food production deficits and famine resulting from erratic rainfall patterns and periodic damage to crops caused by pest infestation. Significant losses to crop production by grasshopper and locust outbreaks have been experienced in Niger for many years, although the precise extent of the losses is difficult to accurately determine. USAID/Niger has had an extensive assistance effort oriented towards locust/grasshopper control and crop protection, including support for monitoring and control operations of the GON's Crop Protection system. Much of this technical and material assistance was mobilized initially through OFDA, and since 1987, has been obtained through the AELGA project. From 1986 to 1992, a total of $4.7 million in assistance (commodities, technical assistance and training) were provided from various USAID sources for crop protection in Niger.

In Niger, the AELGA project operated as a multi-year quasi-development effort, with priority given to short-term disaster response activities. Unlike with previous disaster assistance efforts, the Mission followed a defined strategy to support immediate control needs, and at the same time focused on improving in-country capacity to respond to seasonal pest outbreaks. This approach led to programs of immediate assistance and basic institution development and work with the GON to develop annual work plans. This approach was later expanded to include actions that address environmental impact issues based on the Reg 16-mandated Programmatic Environmental Assessment (PEA) and a Niger-specific Supplemental Environmental Assessment (SEA), which has now been prepared and approved. The PAAD does not appear to address the implications, for DPM program implementation, of this investment by the mission in the AELGA project activities and in the SEA.

B. Program Assistance component

General: The DPM Program seeks to reduce the need for disaster relief by focussing on effective mitigation strategies. The Program is not intended to raise rural producer incomes, economic productivity or social well-being per se, although both of these "development" objectives may flow from a successful disaster relief or mitigation intervention. In this case, "disaster mitigation" seeks to avert the worst of an impending disaster by targeting the conservation of productive assets at the household level, thereby quickening recovery and reducing vulnerability to future crises.

Institutional and Policy Reform: An institutional and policy development component will seek to establish the organizational basis for integrating early warning and disaster response. Under this component a Permanent Secretariat will include two units, an Early Warning Unit, and a Preparedness, Relief and Mitigation Unit. Three sectoral work groups will also be created for early warning (Agriculture and Livestock Pest Monitoring, Crop Production Forecast and Stock Estimation, and Livestock Marketing).

The PAAD is exhaustive and insightful in its exposition of the program and implementation foci for the DPM. However, a few issues arise which do not appear to be fully addressed in the DPM program. Some of these are:

-early warning capability as related to brewing grasshopper and locust conditions and to activating prompt and cost-effective response actions. A systematic monitoring system based on crop loss assessment methodologies, pest population models, economic analysis, weather, field surveillance and remote sensing has not yet been implemented, particularly due to methodological and model limitations and data demands. As the PAAD states (p. 14), but does not relate to the insect monitoring and response component, there is a need to confront and resolve basic data collection and analysis inaccuracies and deficiencies.

-mitigation capability as related to natural resources management experiences. The DPM Program will promote mitigation interventions over direct relief. Many of these may involve food-for-work/cash-for-work labor intensive interventions, such as crop (e.g., seed banks, pest management measures), livestock (e.g., destocking, feed provisions), natural resource interventions (e.g., soil conservation measures), or infrastructural development (e.g., wells, dams/ponds) interventions. The extent to which these contribute either to degradation or rehabilitation of the environment and natural resource base is not adequately understood. There appear to be few linkages made to natural resources management development interventions and lessons in Niger and Sahel over the past few decades. There is a need to avoid ad hoc incentives that are not linked to other change. Thus, we run a risk of pursuing programs in both NRM and food aid/FFW/CFW that do not positively reinforce each other.

The role which crop protection village brigades might play in participatory mitigation activities through implementation of appropriate integrated pest management (IPM) practices for grasshoppers needs to be explored in this context as well.

Emergency Fund: This Fund will normally handle smaller-scale disaster response needs. It will be used to finance non-recurrent costs related to disaster preparedness capability, disaster mitigation interventions, and emergency relief activities. Typically it will be used for purchases and associated costs of commodities, including such items as fuel for emergency pest control operations and animal feed and fodder and on a selective basis to pay for fuel for GON in support of mitigation and relief activities.

It will also provide miscellaneous food grains for disaster relief with emphasis on local purchase. Local currency generated from cash transfer to be used to finance non-recurrent costs related to development of disaster preparation capability, carrying out disaster mitigation intervention and implementation, and emergency relief activities. Costs may also be incurred

for commodity purchases (food, ag. inputs, blankets, tents, fuel, animal feed & fodder, etc.) and support services.

The issue of agricultural inputs is left vague, and implications of assistance for emergency pest control operations are not addressed with respect to the dispensations provided for under the AELGA PEA and Niger SEA.

B. Project Assistance component:

The key inputs under the project, and the issues they raise, include:

Long-term technical assistance and Disaster Relief Unit Transition. Through an institutional contractor, four specialists will provide hands-on expertise and T.A. to the GON. In the event of a larger-scale emergency, the DPM project manager will be responsible for contacting AID/W to obtain tech and commodity support.

No discussion is provided in the PAAD on the expertise which may be needed related to the pest monitoring, control decision-making and operations assistance aspect of the project. Likewise, larger-scale pest emergencies may require involving AELGA or a possible regional AELGA-like successor in the response, yet no mention of AELGA is made.

Commodities: limited critical relief supplies, medical supplies, minor construction materials, ag inputs, and fuel when resources not immediately available otherwise. Any assistance relating to pesticide inputs needs to be considered in the light of SEA considerations.

Training: In-country training should include pesticide safe use and impact mitigation, in the event such use is supported directly; monitoring and evaluation training plans might include environmental and natural resource impact monitoring, valuation and mitigation. The planned vulnerability assessment workshops with FEWS should include crop loss assessment and crop protection considerations.

Studies: To the illustrative list of possible studies could be added: (a) review of the crop protection costs and benefits; (b) actual and potential contribution of crop protection to disaster mitigation, and preparedness capability; (c) alternatives for donor support; (d) feasibility of grasshopper IPM; and (e) village brigade involvement, consistent with decentralization effort.

Logistical support: This will include limited support for vehicles, fuel, personnel per diem costs to respond to emergency, early warning needs when funds are not immediately available from the Emergency Fund. With respect to applicability to crop protection, this needs to be considered in light of the AELGA SEA.

Support to Directorate of Crop Protection (DCP): The DPM Program will help the DCP to better identify and respond to pest outbreaks. Funding will be provided for fuel, per diem, spare parts, maintenance of common systems; also will include T.A., training, studies to improve capacity to use financial and human resources. This support should also be seen as an opportunity to continue the institutionalization of the principles laid out in the Niger SEA to minimize pesticide impacts and maximize the cost effectiveness of the control interventions. DCP monitoring activities should be more integrally

related to the activities of the SAP and the early warning sectoral working group on crop production.

Pilot mitigation activities: The sorts of pilot mitigation interventions to be evaluated are of fundamental relevance to this innovative DPM Program, and they will be assessed for replicability, with the expectation that this will add to the body of knowledge regarding famine mitigation activities in the Sahel which will be of use to other donors and organizations as well. As referred to above under program assistance (Section 3.B), the extent to which these mitigation activities would contribute either to degradation or rehabilitation of the environment and natural resource base is not adequately understood. Therefore it appears especially critical that close cooperation exists with the agriculture and natural resources management development professionals. Yet, in the discussion of possible mitigation interventions, there appear to be few linkages made to natural resources management development interventions and lessons in Niger and Sahel over the past few decades.

4. Environmental Determinations

A. Project Assistance (683-0279): The training, studies, evaluations, audits and technical assistance planned within the project assistance component (683-0279) are recommended for Categorical Exclusion under Sections 216.2 (c)(2)(i) and (iii) respectively of 22 CFR (Reg 16).

Regarding "Support to the Directorate of Crop Protection" and those commodities and activities which may be carried out having a bearing on pesticide procurement or use, be they direct or indirect, Program- or Project-funded, for preventive control or crop protection purposes, a Negative Determination with conditionality is recommended. The condition applied in this case is that any pesticide use (including activities supporting such use, such as fuel for survey aircraft or vehicles) will occur during the Disaster Relief Unit's (DRU) transition year (1993) in connection with a buy-in to the Africa Emergency Locust Grasshopper Assistance (AELGA) project (698-0517).

The AELGA project has provided for a Reg 16-mandated Programmatic Environmental Assessment (PEA) for Grasshopper and Locust Control, and a Niger-specific Supplemental Environmental Assessment (SEA), previously prepared and approved. The SEA provides for the necessary monitoring and pesticide impact mitigation activities to be initiated at country level. In addition, the SEA provides that any pesticide use and or procurement activity not provided for under the PEA and SEA must receive prior approval from AID/W. During the transition year, the USAID DPM Project Manager will determine with the GON which components of the SEA will be incorporated into the DPM program implementation, and how elements may be coordinated with related initiatives of the GON and other donors.

The contingencies and non-pesticide commodity purchases are recommended for a Negative Determination in line with Sections 216.2(c)(2)(xiii) and (xiv). Commodities include office and household furniture, office equipment and supplies, construction material for building refurbishment, medical supplies, agricultural inputs, feed, blankets, tents, fuel, vehicles, and spare parts and limited replacement of related equipment.

B. Program Assistance (683-0271): Within this component, the Emergency Fund, food aid, relief services, and pilot mitigation activities including the cash-

for-work and food-for-work components, are all recommended for a Negative Determination under 216.3(a)(2), with the provision that an Environmental Impact Review be carried out during the first year of program implementation. This review will identify potential for long-run environmental impacts which might otherwise go unanticipated or unexamined (such as possible food-aid related natural resources degradation). It will also provide for appropriate monitoring and minimization of reasonably foreseeable negative environmental impacts by the GON, within the context of the overall monitoring and evaluation program.

Counterpart funds that will be used for public and private sector and PVO/NGO services, purchases and associated costs related to crop protection, such as fuel for emergency pest control operations, are recommended for a Negative Determination, with the condition that a plan be developed for incorporating appropriate provisions of the above-mentioned Niger SEA in the GON crop protection and production forecasting activities (e.g., for minimization of pesticide impact, avoidance of environmentally sensitive areas, and improved control decision making).

The policy, legal and institutional reforms under the Program Assistance component are recommended for Categorical Exclusion under Sect. 216.2 (c)(2)(xiv) because these reforms, as such, are not expected to directly affect the environment. However, the Environmental Impact Review and SEA plan mentioned above should examine these institutional and policy changes to ascertain the extent to which significant environmental impact, if any, might occur, and how it should be dealt with by the GON and USAID.

5. Environmental Monitoring, Evaluation, and Environmental Impact Mitigation

To address issues and concerns such as those raised above, the DPM program should carry out a short-term study termed an Environmental Impact Review (EIR) early during the implementation of the DPM Program. While most of the reforms and activities planned under the DPM would not be likely to have any direct adverse environmental impact, some elements of the program may potentially have such impacts either in the short- or long-term. The EIR would augment the existing monitoring and evaluation plans for the DPM Program, and should be carried out in close coordination with the deliberations regarding the mitigation interventions. Thus the EIR would set out to:

- outline for the GON a monitoring and evaluation program (referred to as the "Environmental Monitoring and Mitigation Plan" (EMEMP), by which significant negative environmental impacts can be discovered and reviewed;
- identify specific environmental indicators to be used by the GON;
- identify the responsible GON institution(s) that will be providing the data that could be used to monitor performance in the environmental sector;
- provide a list of appropriate actions needed to mitigate impacts to be brought to the attention of the responsible government agency by the project staff;
- demonstrate how information derived from environmental indicators and evaluation of performance can be fed back to the GON (e.g., during annual conferences or workshops put on by different ministries or in-country organizations);

- at such sessions the latest data acquired could be compared to any existing baseline data to determine whether impacts are significant, and whether they are positive or negative; and
- if baseline data are lacking, the Environmental Impact Review should recommend the depth and quality of baseline data needed.

The intent of this Environmental Impact Review would be to demonstrate how information derived from environmental indicators and evaluation of performance can be fed back to the GON. Perhaps this could be done during annual conferences or workshops put on by different ministries or in-country organizations. At these sessions the latest data acquired could be compared to any existing baseline data to determine whether impacts are significant, and whether they are positive or negative. Alternatively, if baseline data are lacking, the Environmental Impact Review should recommend the depth and quality of baseline data needed.

Finally, to maximize the EIR's relevance and to enhance the likelihood that environmental mitigation will be taken up by the GON, the EIR and any meetings or workshops addressing it (and the Environmental Monitoring and Mitigation Plan (EMEMP) outlined in the EIR) should be closely coordinated with the Prime Minister's Permanent Secretariat for Early Warning, Preparedness, Relief and Mitigation, as well as involve other relevant Ministries not involved in that Secretariat.

Elements arising from the concerns raised above and which should be considered for special scrutiny during the EIR fall into two main categories:

Natural resources management (NRM) linkages

- the relationship between food aid/work aid and natural resource management or environmental degradation/rehabilitation;

- how marginal land is used, and how its use is influenced by disaster and program food aid;

- relationships and definition of disaster as opposed to development assistance in Niger: requires further clarification and precision related to the various agro-ecological, economic and social environments found in Niger, particularly with respect to the NRM/E impacts;

- to what extent would the pilot mitigation measures -- such as crop (e.g., seed banks, pest management measurers), livestock (e.g., destocking, feed provisions), natural resource interventions (e.g., soil conservation measures), or infrastructural development (e.g., wells, dams/ponds) interventions -- contribute either to degradation or rehabilitation of the environment and natural resource base;

- what have other donors' experiences been in regard to the impacts of FFW/CFW vis-à-vis natural resources management?

As the PAAD acknowledges, it will be important to allow positive indigenous coping strategies to continue, not to usurp or erode them, nor to build dependencies upon uncertain external assistance.

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The role of crop protection (AELGA and SEA) in preparedness and mitigation

Because the point of putting in place a formal Niger Disaster Preparedness and Mitigation program is to replace the current mixture of AELGA, FEWS and AGRHYMET (Sahel Water Data and Management) projects and to rationalize the system for providing emergency assistance, it would stand to reason that the experiences of the AELGA project and the Niger Supplemental Environmental Assessment be assessed as to their relevance to the DPM Program. The purpose would be to focus on the environmental aspects of future assistance programs. Specifically, this would include:

- Approaches to minimizing pesticide use (IPM. preventive control, improved conservative decision-making criteria, etc.)
- Monitoring, forecasting and prevention
- Ensuring effective and safe control
- Institutional and management considerations
- Prevention of impacts on health and environment.

"Pesticide application" involves any activity relating directly or indirectly to the use of pesticides, including provision of fuel for application vehicles, and spill mitigation and clean-up or pesticide disposal actions. As stated above, it is anticipated that under the DPM Emergency Fund, some support may be rendered for emergency pest control operations, at least from the point of view of fuel for vehicles and perhaps aircraft. Likewise, this may be a result of some of the project assistance interventions

Many of these points are summarized in AELGA's 1991 "Review of Environmental Concerns in A.I.D. Programs for Locust and Grasshopper Control". Likewise, the SEA specifically outlines an array of pesticide use and environmental impact mitigation actions which either still need to be strengthened in Niger, or which have been addressed adequately (see Attachment I).

Attachment I to ANNEX D

Synoptic List of Niger Supplemental Environmental Assessment (SEA) Issues

Issues inadequately addressed in Niger:

1. Pesticide Inventory System
2. Alternative disposal of pesticide stocks
3. Disposal of empty pesticide containers
4. Monitoring human exposure to pesticides
5. Poisoning information and antidotes
6. Training of health personnel
7. Epidemiological case-control studies
8. Monitoring and sampling for impact of spraying on the environment
9. Mapping environmentally sensitive areas with resp. to likely spray areas
10. Selection of pesticides
11. Survey and communication
12. Minimization of area sprayed
13. Economic cost/benefit data--crop loss assessment
14. Economic thresholds
15. Transportation Guidelines
16. Support and Training towards self-sustaining capacity
17. A.I.D. mission personnel training

Inadequately addressed but require action in AID/W or elsewhere

18. Continue involvement
19. Inventory of manpower, procedures and equipment (FAO to develop international standards)
20. Pesticide labelling
21. Locust pesticide specifications
22. Pesticide Container specifications
23. Field Testing of Nosema
24. Training of t.A. teams
25. Production of Pesticide Handbook
26. Forecasting of Locust Problems
27. Research on Efficacy of Pesticides
28. Research on Impact of Organophosphates
29. Plan of Action. Practical guidelines as to l/g control operations
30. Coordination Guidelines: common approaches to l/g control

Issues adequately addressed in Niger

31. Public health education
32. Local training programs
33. Regulations and environmental policy
34. Pesticide storage facilities
35. Expertise included with USG funded actions
36. Application techniques and equipment
37. Research on neem
38. Use of helicopters
39, Aerials Application of pesticides
40. No application of pesticides in human settlements or in environmentally fragile areas
41. Total pesticide use inventory

ANNEX E

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

AUG 28 1992

ACTION MEMORANDUM FOR THE ASSOCIATE ADMINISTRATOR FOR OPERATIONS

Thru: Alison P. Rosenberg, AA/AFR

From: Timothy J. Bork, Director, AFR/SWA

Subject: Niger Disaster Preparedness and Mitigation Program (683-0271/683-0279)

Problem: Your approval is required for USAID/Niger to use $2.0 million of DFA FY 92 resources as a cash transfer mechanism for the subject program.

Background: USAID/Niger is currently designing a disaster preparedness and mitigation program that will have a substantial non-project assistance (NPA) component. The program intends to strengthen Nigerien capabilities to assess and effectively respond to disasters.

Discussion:

In accordance with the guidance presented in State 37533 (February 6, 1992) and State 190945 (June 15, 1993), the following information is submitted for your consideration for approval of a cash transfer for the Niger Disaster Preparedness and Mitigation (DPM) Program.

A. INDIVIDUAL RESPONSIBLE FOR THE DECISION TO USE CASH:

George T. Eaton, Mission Director, Niger.

B. AMOUNT:

FY 92 (proposed):	$ 2.0 million DFA (NPA)
	$ 2.5 million DFA (PA)
Life of Project:	$10.0 million DFA (NPA)
	$ 8.0 million DFA (PA)

Eight percent of the total amount of the cash transfer will be placed in a USAID/Niger DPM Program Trust Fund.

C. DETERMINATION OF AMOUNT:

The amount was determined on the basis of the number and cost of small-scale food, medical and other localized emergencies that

the Government of Niger (GON) would probably face over the life of the program. This amount includes only those costs that it is anticipated will not be met from other sources.

D. USE OF DOLLARS (how the dollars will be spent):

The dollars, as required by West African Monetary Union rules, will be converted to CFA francs and deposited in a counterpart fund special account. These counterpart funds are expected to be used to finance non-recurrent costs related to the development of disaster preparedness capability, the carrying out of disaster mitigation interventions and the implementation of emergency relief activities. Costs may be incurred for commodity purchases and support services.

E. PURPOSE OF PROGRAM (what the dollars will buy):

The institutional and policy reforms that will be obtained

1. Establishing a structure within the Prime Minister's Cabinet to coordinate and manage disaster response, including preparedness, mitigation and relief activities;

2. Establishing a plan and promulgating legal texts for institutionalizing an integrated capability under the Prime Minister's Cabinet in early warning and disaster response for food-related and other emergencies;

3. Establishing the legal basis for the declaration of emergencies;

4. Establishing and promulgating guidance on the use of assessment criteria and response thresholds for emergency declarations; and

5. Establishing official guidelines and a juridical basis for GON procurements essential for the provision of emergency assistance.

The generated counterpart funds will be used for purchases and associated costs for commodities, including such items as foodstuffs, vaccines, fuel for emergency pest control operation, and animal feed and fodder. Counterpart funds will finance contracts with private sector transporters and with national and international nongovernmental organizations for specific mitigation and relief-related services. A limited amount of funding will be available on a selective basis to pay fuel and travel allowance for GON personnel in support of mitigation and relief activities, including information gathering, monitoring and implementation.

Through the project component, the Mission anticipates the purchase of three four-wheel-drive vehicles. The rationale for the purchase of non-U.S. vehicles follows.

-- No U.S. dealership exists in Niger and it is not anticipated that any will be established given the low volume and the virtual absence of U.S. vehicles.

-- There is no maintenance capacity for U.S. vehicles. Spare parts are not available, and procurement from U.S. sources would result in unacceptable delays, increased vulnerability and put the lives of those traveling in isolated rural areas at risk.

-- Vehicles cannot sustain frequent long-term travel in rural Niger, particularly, on unpaved roads in the absence of dependable maintenance in these rural areas.

-- Standardization with other Nigerien Government vehicles is essential for the optimal use of these vehicles when they are turned over to the Government upon completion of the project.

To the extent possible, other DPM project assistance purchases will be made from U.S. sources. It is anticipated that DPM project assistance will fund:

-- Computers from U.S. sources;

-- office equipment and office and household furniture from local and U.S. sources;

-- Technical assistance to implement the project and to undertake studies, pilot mitigation activities, evaluations and audits from U.S. companies with the exception of limited local procurement for selected services.

F. <u>ACCOUNTABILITY (what controls will operate to account for the funds)</u>:

Once the conditions precedent have been met, cash transfer dollars will be transferred to Niamey and converted into counterpart funds. The counterpart funds will be kept in the [illegible] acceptable to both parties. Funds will be transferred from this account to the Emergency Fund's disaster operations account, from which all disbursements under the program will be made. The USAID/Niger Controller will receive monthly statements on activity in both Emergency Fund accounts. The program's institutional contractor will be responsible for accounting for the use of the funds once they leave the disaster operations account. Daily monitoring of the disbursements of counterpart funds will be the responsibility of the institutional contractor's local senior accountant, while quarterly financial

statements on the program prepared by a local accounting firm will also account for the use of the counterpart funds. In addition, two nonfederal audits will be carried out during the life of the program.

G. HOW SUCCESS WILL BE MEASURED:

The success of the Disaster Preparedness and Mitigation Program will be measured by:

-- The institutionalization of a vertically integrated disaster early warning and response system within the GON, including a specific decentralized capability;

-- The identification of appropriate mitigation activities for varying situations;

-- The improvement of donor coordination in disaster early warning and response; and

-- The effectiveness of the Emergency Fund in responding to smaller-scale emergencies.

H. CONSIDERATION OF ALTERNATIVE MEANS:

In response to the PID guidance cable for the DPM design (91 State 139989), USAID/Niger examined a number of alternatives, including NPA, for financing the Emergency Fund needed to supply assistance for disaster early warning and response activities. USAID/Niger found that NPA was the only viable choice as follows.

1. A multi-donor effort in which other donors would provide or purchase the food. At the present time, it is unrealistic to build a project structure that would rely on the provision of food or monetary resources from other donors. Such a cooperation remains a longer-term objective because of the nascent GON early warning response capability.

2. Monetization Section 416 or Title III commodities. A definitive report on this subject determined that Niger would be eligible for Title III but found that there was no appropriate food aid commodity for monetization.

3. Debt swap through a PVO. Commercial debt has been largely eliminated by a joint World Bank/other donor loan consolidation/reduction program.

4. PVO management of the Emergency Fund with resources raised from other sources. Apart from other donors, whose present limitations were discussed above, there are no known resources that might be tapped for the fund.

5. Use of the Agricultural Sector Development Grant (ASDG II) counterpart funds. While the type of food-for-work/cash-for work programs envisioned under the DPM Emergency Fund may complement ASDG II objectives, any direct linkage between the two could not be justified given the different needs the two programs will be serving and the specific natural resources management (NRM) plans already developed for ASDG II counterpart funds.

6. Commodity Import Program (CIP). The mission decided against this alternative for the following reasons:

a. Niger's manufacturing sector is minuscule, employing two percent of the population. Moreover, even manufacturing's tiny share of the economy is shrinking as businessmen increasingly desert the formal for the informal sector. The market for commodities to service industry and agro-business is tiny and in general decline.

b. The cost of U.S. commodities, including U.S. shipping, would make them uncompetitive with products coming from other free world sources.

c. The CFA franc maintains a fixed link with the French franc, and when the French franc changes in value against the U.S. dollar, so does the CFA franc. These exchange rate fluctuations can be fairly large and add a substantial element of risk that would deter local businessmen from using a CIP.

d. Both the GON and USAID/Niger have limited staff capabilities for managing commodity import programs.

I. STATUS OF MISSION NEGOTIATIONS WITH THE HOST COUNTRY:

In developing the proposed program, the Mission has worked closely with the Office of the Prime Minister, as well as with the Ministries of Agriculture and Livestock; Public Health; Social Development, Population and the Development of Women; Finance and Plan; Interior; and Commerce, Transportation and Tourism. The policy and institutional reforms identified above have been negotiated with the Office of the Prime Minister.

J. HOW THE PROGRAM FITS WITH THE MISSION PROGRAM STRATEGY:

The goal of the A.I.D. program in Niger is to promote sustainable market-based economic growth, while emphasizing locally managed resources and reduced population growth. The Mission program has two strategic objectives focused on health (to increase the quality, coverage and use of family planning and maternal and child health care) and on agriculture (to increase opportunities for sustainable agricultural production and rural enterprises). Listed as a target under both of these strategic objectives is the promotion of systems to forecast and respond appropriately to

natural disasters. The DPM Program will directly support meeting that target.

Recommendation: That you sign this Action Memorandum, thereby approving the use of a cash transfer mechanism in the development of a disaster preparedness and mitigation sector assistance program for Niger.

Approved: [signature]

Disapproved: _____

Date: 9/22/91

Clearances:

DAA/AFR:JHicks (draft)
GC/AFR:ESpriggs (draft)
AFR/DP/PPD:WAnderson (draft)
AFR/SWA:NMcKay (draft)

AFR/SWA:TDohrmann:U:\SWAPUB\DOCS\NIGER\0279.AAO

ANNEX F

HOST COUNTRY CONTRIBUTION

Per 91 State 138349, host country contribution requirements under Section 110(A) of the Foreign Assistance Act (FAA) of 1961, as amended, may be met with generated local currencies that are programmed as part of the particular nonproject assistance activity. In the case of the Disaster Preparedness and Mitigation Program, the $10 million cash transfer will generate an equivalent amount of local currency that will be used to support disaster preparedness, mitigation and relief activities. These local currency generations more than meet the requirement for a 25 percent host country contribution to the program.

ACTION: AID INFO: AMB DCM /3

RECEIVED
29 APR 91 14 01
USAID/NIGER

PRM
LOC: 303 330
29 APR 91 0747
CN: 17894
CHRG: AID
DIST: AID

ACTION: PROG
INFO: PDO
CHRON

DUE DATE: 05-06-91

VZCZCNMC684
RR RUEHNM
DE RUEHC #8349/01 1171454
ZNR UUUUU ZZH ZEX
R 2714522 APR 91
FM SECSTATE WASHDC
TO AII WORLDWIDE
IT
UNCLAS STATE 138349

AIDAC

E.O. 12356: N/A
TAGS:
SUBJECT: COST SHARING COUNTERPART CONTRIBUTIONS

REF: HANDBOOK 3 CHAPTER 2, APPENDIX 2G

A. PURPOSE: HOST GOVERNMENTS MAY BE MEETING OR EXCEEDING THE LEGISLATIVE REQUIREMENT OF 25 PER CENTUM CONTRIBUTION AND MANY MG MAY BE PERIODICALLY REPORTING TO MISSIONS O THEIR COUNTERPART CONTRIBUTIONS. HOWEVER, THIS MESSAGE IS TO REMIND MISSIONS OF MANAGEMENT'S STRONG INTERIST IN THIS SUBJECT AND TO PROVIDE ADDITIONAL GUIDANCE FOR MONITORING COUNTERPART CONTRIBUTIONS TO AII-FINANCED PROGRAMS, PROJECTS, OR ACTIVITIES.

B. AUTHORITY: SECTION 110 (A) OF THE FOREIGN ASSISTANCE ACT (FAA) OF 1961, AS AMENDED, PROVIDES THAT: "NO ASSISTANCE SHALL BE FURNISHED BY THE UNITED STATES GOVERNMENT TO A COUNTRY UNDER SECTIONS 103 THROUGH 106 OF THIS ACT UNTIL THE COUNTRY PROVIDES ASSURANCES TO THE PRESIDENT, AND THE PRESIDENT IS SATISFIED, THAT SUCH COUNTRY PROVIDE AT LEAST 25 PER CENTUM OF THE COSTS OF THE ENTIRE PROGRAM, PROJECT, OR ACTIVITY WITH RESPECT TO WHICH SUCH ASSISTANCE IS TO BE FURNISHED, EXCEPT THAT SUCH COSTS BORNE BY SUCH COUNTRY MAY BE PROVIDED ON AN "IN-KIND" BASIS."

C. APPLICATION: APPLICATION OF SECTION 110 (A), IN ADDITION TO DEVELOPMENT ASSISTANCE FUNDS, EXTENDS TO THE DEVELOPMENT FUND FOR AFRICA (FAA 1961, AS AMENDED, CHAPTER 10, SEC 496 (I). A.I.I. HAS ADMINISTRATIVELY EXTENDED THE REQUIREMENTS OF SECTION 110(A) TO INCLUDE MANY, BUT NOT ALL, ECONOMIC SUPPORT FUND (ESF) PROGRAM AGREEMENTS. HOST COUNTRY CONTRIBUTION REQUIREMENTS UNDER SECTION 110 MAY BE MET WITH GENERATED LOCAL CURRENCIES THAT ARE PROGRAMMED AS PART OF THE PARTICULAR NONPROJECT ASSISTANCE ACTIVITY. DISCUSSION OF THE APPLICATION OF SECTION 110 (A) IS INCLUDED IN REFERENCED HANDBOOK.

NOTE THAT THE REQUIREMENT FOR COST SHARING IS FOR A MINIMUM OF 25 PER CENT OF THE TOTAL PROGRAM OR PROJECT, NOT 25 PER CENT OF THE A.I.D. CONTRIBUTION.

D. DISCUSSION: SOME VIEW THE 25 PER CENT HOST

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GOVERNMENT (HG) CONTRIBUTION AS AN INDICATION OF THEIR COMMITMENT TO SUSTAIN A PROJECT AFTER A.I.D. FUNDING CEASES. OTHERS BELIEVE THIS HG COMMITMENT IS LIMITED TO AN INDICATOR OF INTEREST, OR DESIRE FOR SUSTAINABILITY. FURTHER, SOME PROJECTS ARE DESIGNED ESSENTIALLY TO BUILD CAPACITY THAT DO NOT REQUIRE FURTHER INPUTS. REGARDLESS OF THE INTENT, THE CONGRESS ENACTED SECTION 110 IN ORDER THAT RECIPIENT GOVERNMENTS DEMONSTRATE TANGIBLE SUPPORT FOR AID-FINANCED DEVELOPMENT EFFORTS.

E. IN SOME COUNTRIES THE CONTRIBUTION TO THE A.I.D. PROGRAM MAY EXCEED 50 PER CENTUM (EQUAL TO OR GREATER THAN THE A.I.D. CONTRIBUTION). FOR SOME LEAST DEVELOPED COUNTRIES, HOWEVER, A WAIVER OF THE 25 PER CENTUM REQUIREMENT IN SECTION 110 MAY BE NECESSARY. FAA SECTION 124 (D) AUTHORIZES A WAIVER ON A CASE-BY-CASE BASIS, OF THE REQUIREMENT OF SECTION 110 (A) FOR FINANCIAL OR "IN-KIND" CONTRIBUTIONS IN THE CASE OF PROGRAMS, PROJECTS, OR ACTIVITIES IN RELATIVELY LEAST DEVELOPED COUNTRIES (RLDC).

F. THE A.I.D. IMPLEMENTING GUIDANCE IS IN HANDBOOK 3, CHAPTER 2, APPENDIX 2G FOR THE COST SHARING LEGISLATION CONTAINED IN SECTION 110. THE HANDBOOK ESSENTIALLY HOLDS EACH MISSION RESPONSIBLE TO SEE THAT ITS PROGRAM IS IN COMPLIANCE WITH SECTION 110.

G. A RECENT AUDIT REPORT RAISED THE ISSUE OF "ADDITIONALITY", I.E., AN OUTLAY WHICH, IN THE ABSENCE OF THE PROJECT OR GRANT AGREEMENT, WOULD OTHERWISE NOT HAVE BEEN MADE. HOWEVER, A.I.D. DOES NOT INTERPRET SECTION 110 TO FALL WITHIN THE MEANING OF "ADDITIONALITY", BUT CONSIDERS THE OVERRIDING FACTOR IN COMPLYING WITH SECTION 110 TO BE WHETHER THE HOST COUNTRY'S 25 PER CENTUM CONTRIBUTIONS ARE USED IN A COORDINATED EFFORT TO SUPPORT THE PROGRAM, PROJECT, OR ACTIVITY AS DESIGNED TO ACHIEVE SUSTAINABLE ECONOMIC DEVELOPMENT. THE DEFINITION IN HANDBOOK 3, APPENDIX 2G IS CONSISTENT WITH THIS INTERPRETATION, AS FOLLOWS:

"THE CONTRIBUTION OF THE RECIPIENT COUNTRY MAY COVER PROJECT OPERATING AND/OR CAPITAL COSTS INCLUDING: CASH, CAPITAL GOODS, COUNTERPART PERSONNEL RELATED SERVICES AND STUDIES WHICH ARE PART OF THE PROJECT, RENTAL OR PURCHASE OF MATERIALS FOR THE OPERATIONS OR CONSTRUCTION OF THE PROJECT, ADMINISTRATIVE COST, FAIR MARKET VALUE OF LAND CONTRIBUTED BY THE COUNTRY

OF THE PROJECT AND COSTS RELATED TO THE ABOVE ITEMS. IT WILL BE NOTED THAT THE INCLUSION OF THE WORDS 'IN-KIND' IN THE PERTINENT LEGISLATION INDICATES THE INTENT OF CONGRESS THAT CONTRIBUTIONS SHOULD BE CONSTRUED TO REFLECT THE TOTAL VALUE OF CONTRIBUTIONS OF THE RECIPIENT COUNTRY GOVERNMENT. SITUATIONS WILL UNDOUBTEDLY ARISE WHERE IT IS NOT CLEAR WHETHER CERTAIN COUNTRY CONTRIBUTIONS COME WITHIN THE MEANING OF SECTION 110. SUCH QUESTIONS SHOULD BE SUBMITTED TO AID/W FOR EARLY RESOLUTION.

B. IN SETTING FORTH THE PRINCIPAL FOCUS OF THE PROJECT ASSISTANCE COMPLETION REPORT, HANDBOOK 3, CHAPTER 14, APPENDIX 14A IMPLIES THAT RECORDS WILL BE MAINTAINED (NOT SPECIFIED BY WHOM) TO PROVIDE FOR A SUMMARY OF CONTRIBUTIONS MADE BY THE B/G,.... (I.E. PLANNED VERSUS ACTUAL INPUTS).

I. PROBLEM: IN MEETING OUR MANAGEMENT RESPONSIBILITIES A.I.D. SHOULD GO A STEP FARTHER THAN ASSURANCES, OR WAITING UNTIL THE PROJECT IS COMPLETED TO MONITOR HG CONTRIBUTIONS TO THE A.I.D. FINANCED PROGRAM, PROJECT, OR ACTIVITY. RATHER WE BELIEVE THERE SHOULD BE MISSION STANDARDS TO PROVIDE "AUDITABLE EVIDENCE" WITH RESPECT TO REPORTING AND DOCUMENTING HG FINANCIAL CONTRIBUTION TO A.I.D. ECONOMIC DEVELOPMENT EFFORTS. THE FOLLOWING GUIDANCE SETS FORTH THESE STANDARDS:

ACTION: 1. MISSIONS SHOULD INSURE THAT SYSTEMS ARE IN PLACE TO OBTAIN INFORMATION ON HOST GOVERNMENT (HG) CONTRIBUTIONS AND THAT SUCH INFORMATION IS RECORDED IN THE OFFICIAL RECORDS/FILES OF THE MISSION. MISSION PROCEDURES SHOULD BE SPECIFIC AS TO RESPONSIBLE OFFICE(S), OR INDIVIDUAL(S) FOR MAINTAINING THE MISSION OFFICIAL RECORDS, E.G., HG CONTRIBUTION PERFORMANCE REPORTS PROJECT MANAGER'S CERTIFICATION FOR COMPLIANCE WITH CONTRIBUTION REQUIREMENTS, RELATED ACCOUNTING RECORDS AND CORRESPONDENCE.

2. MISSIONS SHOULD INCLUDE IN AGREEMENTS OR PILS A REQUIREMENT FOR HOST GOVERNMENTS TO REPORT ANNUALLY (MORE FREQUENTLY IF APPROPRIATE) ON THEIR CONTRIBUTION (CASH AND IN-KIND) TO THE AID FINANCED PROGRAM/PROJECT/ ACTIVITY. (USAIDS MAY DESIGN THEIR OWN REPORT FORMAT.) WHERE SUCH REQUIREMENTS DO NOT EXIST, AN IDEAL TIME FOR ADDING THIS LANGUAGE WOULD BE WHEN THE PROJECT IS AMENDED TO PROVIDE INCREMENTAL FUNDING, OR WHEN ISSUING THE ANNUAL BUDGET PIL IF SUCH PROCEDURES ARE UTILIZED.

3. THE ADEQUACY OF THE HG CONTRIBUTION SHOULD BE REVIEWED DURING PROJECT IMPLEMENTATION REVIEWS (PIRS) AND THE RELIABILITY OF THE REPORTS TESTED BY MISSION SITE VISIT REVIEWS AND EVALUATIONS. IF HG CENTRALIZED SYSTEMS ARE NOT MAINTAINED, AS A MINIMUM, THE PROJECT OFFICER/MANAGER SHOULD OBTAIN THE HG COST SHARING REPORT AND, AFTER SIGNING THE REPORT INDICATING THE REPORT'S REASONABLENESS IN RELATION TO PROJECT ACTIVITY, STAFFING PROGRESS, ETC., FILE THE REPORT IN THE

OFFICIAL MISSION PROJECT/PROGRAM FILES. (IT SHOULD BE NOTED THAT WHEN AGREEMENTS CALL FOR CONTRIBUTIONS IN EXCESS OF 25 , THE MISSION ALSO MUST ENSURE THAT THE AGREED TOTAL HG CONTRIBUTION IS PROVIDED SO THAT PROJECT/PROGRAM OBJECTIVES ARE MET.)

4. MISSIONS SHOULD FOLLOW GUIDELINES IN REFERENCED HANDBOOK AND HANDBOOK I, PART VII, 2.41 FOR COMPUTING VALUE OF IN-KIND CONTRIBUTIONS AND RATE OF EXCHANGE TO BE USED IN CALCULATING THE HG CONTRIBUTIONS.

5. QUESTIONS REGARDING THE ABOVE-OUTLINED STANDARDS OR HG CONTRIBUTION MONITORING GENERALLY SHOULD BE REFERRED TO AID/FM/FPS. HAGLIBURGER

ANNEX G

ECONOMIC RATIONALE

I. Economic Effects of Disasters

A local economy consists of capital and labor which are allocated to production using the natural resources, including land, in a particular area. In the context of economic theory, a natural disaster can be considered a negative natural resource in that it has an effect on output and the production process and is not produced by humankind. It is the presence of people in its vicinity that defines the event as a disaster rather than simply an act of nature. In this sense, a natural disaster is defined as a physical event (drought, flood, earthquake, etc.) that has a strong and negative impact on people. Given the conventional assumptions made about production functions, greater amounts of natural resources tend to raise the productivity of capital and labor and hence to attract capital and labor to an area. Conversely, negative resources tend to repel these inputs. If all other things are held constant, a decrease in resources in an area should result in a decrease in the volume of economic activity in that area. Thus, disasters (if they are considered as negative resources) are equivalent to a rapid decrease in resources and results in lower levels of labor and capital.

A. Savings and Capital Formation

In a subsistence economy, a disaster such as a severe drought can cause a decrease in food availability which, in turn, results in the need to purchase more food than would be the case during a normal year. In such a case, the disaster can cause dissavings (consumption in excess of income) in the subsistence economy by depleting grain reserves and herd size. With a drastic drop in production, there may be no savings in terms of grain stored at the village level. Sales and/or death of livestock can mean that in order to maintain the same capital stock (i.e. herd size in this case), the rate of herd reconstitution will have to equal the rate of loss. Since it takes time to reconstitute the herd, and since the effects of the drought can last up to one year after the actual drought, capital formation in the subsistence economy in terms of livestock would then be negative, and capital formation in the following several years would also be negative.

B. Trade and Balance of Payments

Continuing with the hypothetical example of severe drought (by far the potentially most costly disaster in the case of Niger) and its impact on livestock, such a disaster would affect Niger's export earnings since livestock is Niger's largest agro-pastoral export. At first, the poor pastoral situation could encourage herders to sell their animals. This approach makes economic sense; earlier destocking assures that cereal can be purchased before cereal

prices increase markedly and before animal prices decrease markedly. The increase in volume, however, could be more than offset by deteriorating terms of trade resulting in declining export earnings. Prices could decline markedly depending on the condition of the animals.

Declining livestock export earnings due to the deterioration of terms of trade would increase the trade deficit. Over time, the rate of declining export earnings from livestock and livestock products would increase. The trade deficit could increase further due to increases in food imports. Due to the GON's financial constraints, official grain imports for which the GON would have to pay would not likely increase. Unrecorded imports from neighboring countries, however, particularly from Nigeria through parallel markets, would likely increase. The latter would be financed by private short-term capital flows and consequently would have no effect on the overall balance of payments situation.

C. Rural Income

A disaster such as a severe drought would have two effects on rural income. In addition to the obvious reduction of the overall level of rural income, it would also increase income inequality, with a greater percentage of income among the poor going to food purchases. With production levels for millet and sorghum decreasing by 50% or more due to a severe drought, those fortunate enough to hold assets would begin to liquidate them. The biggest impact of drought on rural income, however, occurs among the poorest who do not have assets to liquidate.

Consider the famine survival tactics practiced by farmers in south-central Niger in the year following the 1984 drought. Per capita income prior to the drought (1983) had been approximately 121,920 CFA. During the drought, there was a tendency to sell livestock and buy cereals. Farmers in this area paid out a mean of 27,300 CFA more for cereals than they took in from sales. Against this deficit, farmers took in a mean net revenue of 27,000 CFA from livestock transactions and 3,900 CFA from cash crop sales. As a direct result, livestock inventories in the survey zone dropped 31% for cattle, 26% for sheep, and 22% for goats during the year following the drought. Loans from relatives, friends and neighbors averaging 9,500 CFA made a substantial contribution. Because it arrived at the time of greatest need, food aid played an important role in providing cereals worth a mean of 10,000 CFA per household. Unfortunately, net income from non-agricultural work and temporary migration is unknown. Still, the combination of livestock sales, loans, food aid, non-agricultural activities and temporary migration allowed almost all of the farm households studied to successfully survive the drought. They succeeded by retaining intact the productive resources most difficult to recuperate if lost: family labor, land and farm equipment. Livestock losses were significant, but generally recoverable within two years.

This example illustrates the type of coping strategies that are available to the more fortunate during a disaster. The scale of their coping mechanisms is far greater than those available to a majority of the rural and urban poor, who have little to no assets to liquidate. Further, most disasters funded under DPM will not be as severe as that of 1984/85. It is presented here to demonstrate the process of asset liquidation; obviously, those with low resources faced malnutrition, poor health, and even death.

D. Production

The drought of 1984 pointed out how dependent Nigerien farmers are on timely rains. At less than half normal rainfall, the season was a one-in-forty disaster. Worse yet, a dry spell struck during what is normally the rainiest month, August, when millet, cowpea and peanut flower are at their most vulnerable. Millet, the staple crop, yielded 150 kg per hectare, one-third of its normal yield during that period. Instead of providing enough grain to feed two adults, a hectare yielded less than enough for one. Yet, other crops yielded virtually nothing. Low grain yields were accompanied not only by low hay production, but also by poor pasture growth generally.

Examining an "average year" for foodgrain production in Niger is difficult given the wide fluctuations that occur from year to year. The years 1985/86 through 1991/92 are selected for analysis here, since this sample includes an even distribution of bad years (1987/88 and 1990/91 in particular) and good years (1988/89 and 1991/92). From 1985/86 to 1991/92, Niger has an average net millet/sorghum production figure of 1,569,234 metric tons, an average consumption requirement of 1,591,606 metric tons, and an average deficit of 22,371 metric tons. This deficit figure is calculated before both commercial and concessional imports. What is striking from the FEWS/Niger data, however, is that even when national food supplies are nearly adequate, substantial portions of the population suffer from inadequate access to food. The data suggests that localized food shortfalls are recurring and of a chronic nature. Farmers have made up for declining yields per hectare by increasing the area under cultivation. Arable and permanent cropland approximates 3.5 million hectares for millet and 1.4 million hectares for sorghum. With declining yields per hectare, a fragile environment, and 3.4% population growth, demand will outstrip domestic production in even greater numbers over the next several years.

Livestock yields have been fairly stable in recent years, despite slow progress in replenishing the cattle population since the 1984 drought and a gradual decline in the amount of permanent pastures available to livestock herders. Cowpeas have shown a dramatic increase in output since 1986, as have onions. These trends point out the resilience and adaptability of Niger's agro-pastoral

private sector in a harsh physical environment.

E. Marketing

A recent IFPRI study showed that many Nigerien families are unable to produce enough food to meet their annual consumption needs. The sample revealed that between 75% and 96% of households are net purchasers of all crops, between 72% and 96% are net purchasers of cereals, pulses and tubers, and between 18% and 42% are net purchasers of livestock. The fact that these households have opportunities to earn the necessary income to purchase food demonstrates the degree to which this rural economy is commercialized. Being dependent on the market presents a special problem, however, to those who do not have the production to sell in the market or opportunities to earn off-farm income. Often, these vulnerable groups are located in distant areas where private truckers and traders are unwilling to venture.

It can be argued that the availability of grain from Nigeria has prevented Niger's food situation from becoming even more perilous in recent years. The magnitude of this trade is unknown. According to recent analysis done for OPVN, it is estimated that Nigeria's total millet and sorghum production to be nearly four times what is produced in Niger - nearly 7 million tons versus 1.9 million tons in 1991. With such a large population, demand is also high in Nigeria for local production, but Nigeria imports and produces a huge variety of other products as well. With higher productivity in northern Nigeria's markets, exporting up to 200,000 tons to Niger is plausible as it represents a small percentage of Nigeria's total production. The OPVN study estimated that trade from Nigeria ranges from 80,000 to 160,000 tons annually depending on production levels in Niger, prices and stocks in Nigeria, terms of trade and the exchange rate for the naira.

F. Natural Resources

Less than 12 percent of Niger's total land area, 15 million hectares (ha) out of 127 million ha, is considered potentially useful for cultivation. Most of the agricultural land is a strip along the southern border where the annual rainfall varies from 350 mm to 800 mm. Studies in Tillabery Department indicate that the 350 mm isohyet has dropped from 16 to 14 degrees longitude between 1968 and 1984. Outside of this 15 million ha area, available soil resources are too poor and the rainfall too low or too irregular for successful rainfed cultivation, but fairly adequate for extensive livestock production. A significant absence of rainfall has two important consequences: (1) there is no moisture for plant growth; and (2) there is no ground water for drinking or irrigation purposes.

The natural resource base has been under increasing stress for two generations, with rapid and visible deterioration since the 1972/73

drought. The causes of stress cannot simply be attributed to drought and its consequences, although it has sharply curtailed the resilience of the resource base. Two contributing factors to this trend are worth noting: demographic pressure which has sharply altered the ratio of labor to naturally occurring capital; and the progressive loss of "coherence" in a variety of traditional systems as new administrative, market, technological, communication, transport and social mobility options have created multiple opportunities for resource exploitation. These opportunities, however, are not yet coupled with a clear sense of resource management responsibilities or sustainable use strategies. In the current situation, low input rainfed agriculture in Niger cannot assure the three preconditions for sustainable rural development: adequate income, acceptable risk, and a viable mechanism through which future income streams can continue to grow in both volume and stability. The need for sustainable rural development has been underscored by spreading rural economic crisis and punctuated by periodic drought and food shortage.

G. Nutrition

Calorie consumption in Niger, like its Sahelian neighbors, is variable according to the season. Calorie consumption tends to gradually fall during the dry season, and reaches its lowest point during the rainy season, May to September, before the harvest, when the supply of basic cereals is reduced and the prices are higher. This period requires the maximum expenditure of energy for planting and weeding; thus this is when malnutrition is more likely to occur. The economic cost of this pattern is lost productivity. Calorie consumption tends to rise following the harvest.

Studies of food consumption in Niger indicate that following a good harvest, seasonal differences in cereal consumption tend to be small, and that consumption levels can be maintained at or above requirements throughout the year. However, as can be expected, this does not hold in the event of a disaster, or for all people. For example, a survey of 1,960 children in Niger conducted by the Ministry of Health following the 1984 drought revealed a 25.1 percent incidence of chronic malnutrition and a 15.8 percent incidence of acute malnutrition using weight-for-height as an indicator. This survey found important regional variations in malnutrition following the drought, with 9.8 percent of the surveyed children in the urban areas suffering acute malnutrition compared with 27.5 percent in the rural areas. Figures for malnutrition before and since 1984 show that acute malnutrition is a serious problem even in years without declared disasters.

H. GON Activities and Strategy

Disasters cause both the GON and donors to adapt their programs and activities to the new situation, and to expectations about future disasters. The changes made by GON following the severe drought of

1984 have provided a profound reorientation of their development investments towards the kinds of activities that are consistent with the "preparedness" element of DPM. The shift in national emphasis from large, government-operated projects to community-run, small programs was accelerated by the GON in 1984/85. One important aspect of this reorientation is the emphasis on off-season farming (contre saison) in areas with sufficient water supply. The GON's increased interest in development of irrigated agriculture and in agricultural and hydrological research also can be directly tied to the impact of the 1984 drought.

The drought also led the GON to provide substantial support to natural resources management and environmental restoration and protection programs. At the time of the 1984 drought, former President Kountche even cited environmental deterioration as a major reason for his strong support for family planning. It appears that the shift in GON emphasis following the 1984 drought reoriented development priorities in a way that can provide a supportive and complementary framework for the changes envisioned under DPM. These fundamental changes enjoy strong support from the donor community. Although no further strategic changes of this magnitude are expected during the life of the DPM program, much more work is necessary to coordinate donor activities to maximize the utility of donor inputs.

I. USAID/Niger Program

There is no question that donor activities are often disrupted by disasters. Some activities cannot continue, while others are reoriented to mixed results. The 1984 drought provides several examples along these lines.

For example, the implementation of the National Cereals Research Project (683-0225) and of centrally funded research projects suffered during the 1984 growing season because of lack of moisture at key times in the growing cycle for rainfed experimental plots. The Integrated Livestock Project (683-0242) was affected by the drought, and the project was reoriented to respond to emergency conditions. An emergency plan was approved for the project in January 1985. Under that program, $600,000 in project funds were provided for the establishment of dry season gardening projects within the project zone, the transport of 1,000 animals from depleted pastures to southern grazing areas, the distribution of essential supplies and veterinary medicines to members of project herder associations, the accelerated development of an early warning alert survey system to provide information on grazing conditions, and the creation of a pilot animal bank for controlled herd reconstitution. This program was supplemented by an OFDA grant for material and medical support to families which had lost all or most of their animals, and for supplemental feeding of at-risk groups.

In addition, the drought had a mixed impact on the implementation of policy reform under the terms of the Agriculture Sector Development Grant I (683-0246/47). The GON moved expeditiously to liberalize cross-border livestock trade, allowing the export of cattle towards the coast as pastures dried up in Niger. The Nigeria border closing, however, reduced the revenue stream which would be realized from the implementation of this reform.

II. Economic Rationale for Intervention

As the previous section implies, one of the primary economic rationales for the DPM Program is to assist Nigerien efforts to develop an identification and response capacity to disasters to: (1) minimize the need for vulnerable groups to have to liquidate their assets and in the process, mortgage their futures; and (2) allow the process of development to continue. The point of intervening is to prevent, when possible, the most extreme measures from being taken and to offer some cushion, no matter how limited, to allow vulnerable populations to sustain themselves.

For example, the cost of providing mitigation activities such as commodities, credit, food for work and cash for work is certainly lower than dealing with problems of widespread asset depletion, population dislocation, and destitution that can occur. The need for closer monitoring and response thus turns on the economic argument that bolstering positive coping mechanisms is more effective and less costly in the long run than allowing vulnerable populations to exercise the most extreme options when all their coping strategies have failed. Reducing the level of vulnerability of populations who are most at risk thus makes economic sense.

III. How DPM Will Support This Economic Rationale for Action -- Costs and Benefits

Benefit/cost analysis is a formal comparison of discounted project costs and benefits accruing to a given project. Especially in projects involving public goods, the calculation of social costs and benefits becomes difficult and arbitrary. Likewise, the development of institutional infrastructure and capacity presents difficulties for the calculation of benefit flows resulting from the project. For this reason, the DPM Program calls for a study on the impact of disaster assistance. The study would closely examine and document the costs and benefits of different forms of disaster assistance for different people, expressed in quantitative terms to the extent possible. Internal rate of return analysis is rarely if ever used in this type of context, being conceptually and practically more appropriate to commercial projects.

That being said, benefits from the DPM Program will accrue: (1) as benefits from the costs foregone due to planning and increased response speed and timeliness. For example, timely pesticide applications are more effective than applications delayed by

response lags; (2) in the form of returns to additional investment capital generated under the Program through food-for-work or cash-for-work activities, targeted credit, etc.; and (3) as benefits derived from putting in place the institutional infrastructure for disaster mitigation and response within the GON through development and use of a consistent methodology based on realistic local indicators.

Due to our inability to precisely predict the timing and cost of disasters, discounting the costs and benefits of the DPM program is not appropriate. However, by incurring costs earlier rather than later in the disaster cycle in anticipation of inevitable but not temporally defined occurrences, it can be argued that discounting the costs would favor implementation of the DPM Program.

Benefits will occur with DPM that would not otherwise occur, such as: improved early warning, preparedness and response capability, which will have a direct impact on thousands of Nigeriens who annually face food shortages; increased involvement of the "victim" in disaster prevention and response; gains in nutritional status, job skills acquired and/or income levels; human capital formation which will then be used to strengthen Niger's institutional capacity to mitigate and prepare for disasters; increased GON ability to respond to localized emergencies and provide effective early warning; and increased decentralization down to the arrondissement level with the movement of money and decision-making power to the most local level of disaster planning and assistance. Without DPM, the incidence of disasters would increase the need to continually modify the USAID/Niger program, which could lead to decreased program effectiveness and impact. Given the crippling effects of disasters as well as the benefits that can accrue from improved preparedness, mitigation and relief capabilities, DPM is a highly beneficial program for USAID/Niger to put in place at the current time. Thus, it is not necessary to attempt to discount the expected value of institutional changes which will occur as a result of this program.

IV. Benefit/Cost Comparison - DPM vs. Former Disaster Responses

Since 1966, USAID/Niger has provided approximately $36,161,000 in emergency assistance. Of that total, $49,000 went to control epidemics, $25,000 for urban fire, $35,000 to floods, and $4,700,000 to crop protection. The rest of the funding went to combat drought-related emergencies. Although there is no way to know if severe drought will continue to require the largest part of USAID disaster assistance, an examination of the Mission's previous approaches to drought relief alone shows that DPM is likely to yield a higher benefit/cost ratio than previous USAID/Niger responses.

USAID/Niger has moved away from the long-held notion that short-term improvements in food security require distribution of food in

all cases. During several of the years in which USAID/Niger has provided emergency food aid, official national cereal production has met nearly 100% of Niger's national consumption requirements. Imported food aid was required only because regional deficits were not met from free market reallocations of available stocks, and the Mission had no other alternative to importing food. DPM will serve to strengthen local capacity to reallocate in-country food stocks from surplus areas to deficit areas.

Based on the Mission's own past food distribution experiences and those of other donors, the Mission now sees the possibility for, and necessity of, an increasing role for a number of mechanisms that will give DPM the needed flexibility to provide assistance in the most efficient and effective manner possible. DPM provides the GON with a "menu" of options that, when needed, will provide the necessary flexibility to accrue the following benefits that were not possible under previous programs, including: (1) more effectively targeting emergency assistance to areas and people in need; (2) serving to initiate a longer term development effort which builds toward a solution to the problem; (3) strengthening local and regional agricultural markets; (4) encouraging local commercial activities through sustaining disposable income in poor rural areas; and (5) reducing logistical support requirements for food aid delivery.

ANNEX H

SOCIAL ANALYSIS

I BACKGROUND

Disaster is well-known in Niger and is most often equated with famine. The catastrophic 1968-74 drought brought the horror of drought and famine to the forefront of global concern but it was not a first for Nigeriens. Perhaps, more insidious and continuous are the localized, smaller-scale emergencies which while never reaching the level of a national disaster, cause undue hardship for particular segments of the rural poor. To be better prepared and able to respond to smaller-scale emergencies is the purpose of the USAID/Niger Disaster Preparedness and Mitigation Program.

The following Social Analysis focuses on the socio-cultural milieu in which the DPM will operate to address the feasibility of the proposed program and project support activities. As called for in the Scope of Work, particular attention is paid to (1) local perceptions of disaster/emergency in order to incorporate people's experience and knowledge in development assistance, (2) concerns related to gender and disadvantaged populations and (3) participation in mitigation activities including lessons learned from cash-for-work/food-for-work (CFW/FFW) projects.

II METHODS

The substance of the following report comes from three major sources:

(1) Literature Review. In preparation for the study on victims perceptions of famines/disasters, a literature review was undertaken of material relevant to the Sahel and Niger from a socio-economic perspective. Highlights have been extracted for inclusion here.

2) Study of "Victim" Perceptions of Disaster/Famine. During January-March 1992, rapid, informal surveys were conducted in three departments chronically deficit in cereal production: Zinder, Diffa, Tillaberi, where USAID distributed food aid during 1991. Because disaster in Niger is largely synonymous with drought, famine became the focus of the study. Field work included open-ended interviews with (1) the chef and elders of the village/camp in a group setting, often including the group's designated historian (usually an old Marabout) and (2) individuals found ad hoc in the village/area. Site selection within departments sought to include areas of differing productivity, remoteness and ethnic diversity. Field work was conducted in each department by individuals who had lived from one to four years in the respective

region and who spoke one of the local languages. Supervision, supplemental fieldwork and analysis were provided by the USAID/Niger social scientist.

Two questionnaires served as topical guidelines for the group and individual interviews but considering the exploratory nature of the study, interviews were not confined by the questionnaire. The intent was to listen and learn from people through an open, inquisitive format. A total number of 52 group interviews and 139 individual interviews were completed during approximately 3 weeks of field work in each department.

Table: Data collection in 3 departments

Department	No. of Interviews				Ethnicity
	Group	Individual			
	Total	Total	Men	Women	
Zinder	23	60	41	19	Hausa, Twareg, Fulani
Diffa	14	55	31	24	Mobeur, Kanembou, Toubou, Arab
Tillaberi	5	24	15	9	Songhai, Zarma, Twareg, Fulani
TOTAL	52	139	87	52	

3) Discussions and Site Visits. During its work in-country, the project design team interviewed numerous people and made several field trips. In particular, the social scientist participated in field trips to Filingue to visit three sites of the GTZ Programme de Mesures Anti-Erosives (PMAE); to Ouallam to visit two participating villages of the UNICEF Projet Conjoint Appui Nutrition; and a field trip in the Tahoua Department to visit the Keita Project, Arrondissement Services in Bouza, two rural NIGETIP sites and the CARE Galmi project. The PCAN project features a community model of growth monitoring by village committees that stimulates nutrition response actions such as gardening, cereal banks, small stock production, boutiques to improve food security. All the other projects use food-for-work to motivate communal work in famine mitigation actions except NIGETIP which uses cash-for-work in public works contracts. Discussions with project personnel and observations during the field trips are incorporated in the following report.

III DISASTER AND VULNERABILITY IN NIGER

Disaster is defined as a *crisis that outstrips the capacity of a society to cope with it*. In Niger, as in Africa in general, disaster is largely synonymous with famine. In the early 1970's, famine was explained as the failure of food production due to

natural causes, especially drought. A food crisis was seen as a problem of food supply. Today, famine is seen not as the result of a single event or one bad production year but as conditions that usually develop over several years. And while drought is associated with famine, it is no longer considered the cause of famine. Drought might be a precipitating factor, but it is one among other factors including the social, economic (regional, national, international systems), political and environmental situation that allows for a collapse in food access where poverty exists.

Over the years, the definition and causes of famine have changed with concurrent changes in disaster mitigation activities. Currently, the focus is on the distributional issues inherent in food insecurity. Rather than viewing a food crisis as a problem of food supply (people starve because of insufficient supplies of food, i.e., food availability), concentration is placed on understanding famine as an issue of access to food, or food entitlement. Access depends upon purchasing power, market efficiency and transportation networks among other factors.

A. Perceptions of Famine

Chronologies obtained from villagers in the departments of Diffa, Zinder and Tillaberi suggest that widespread destitution occurs regularly. These chronologies are being further analyzed and compared but in most regions, oral histories account for a famine on a frequency of about once every 10-12 years. Most of the chronologies start with the famine of 1913/14. One Songhai village in western Niger dated its famine history back to the early-to-mid 1800s. Unlike the settled farmers, interviews with pastoralists did not evoke the same level of oral history related to famines. This may be due to their movement patterns and lessened dependency on locational production parameters or nuances of the interview process and linguistic subtleties.

Famines are recognized with local names and meanings that serve as historical markers of importance. Several of these famines carry the same name across Niger while others have more localized names and interpretations. These 'declared' famine years are distinguished from periodic deficit years in terms of scale and destitution. In famine years, food is difficult to obtain, even if the individual has money whereas in other years, there may be hunger and suffering but people are able to manage. "In a bad year, one gets at least some harvest - in 1991, for example, we could sell our beans". In a Filingue interview, villagers made the distinction between a poor production year when villagers sell livestock to purchase grain and a famine year when they are forced to eat their animals. The latter response signifies a different level of destitution as a result of negative terms of trade when grain prices outstrip livestock equivalents.

Famine years are perceptually different from other years of low production. They are correlated with years when there was total lack of rain or total devastation by crickets or rats in contrast to years when rainfall is low and/or distribution untimely. Respondents more often linked famines of the past to insect attacks whereas recent famines are more often attributed to drought. This may reflect people's current concerns with decreasing rainfall and climatic changes affecting the region.

People distinguish famine years from other years in terms of two major impacts: (1) forced migration in search of food and (2) death. Death as a consequence of famine was reported from the Songhai villages in western Niger. Otherwise, few of the respondents attributed death to famine except for during famines of the early part of the century. This may be due to cultural sensitivities in talking about death or to ethnolinguistic complexities of the interview process. Or perhaps deaths are perceived as due to other factors than to famine per se [1]. It also may mean that people see the crisis, not in terms of death, but primarily in terms of dislocation, social disruption and lost lifestyles: heads of families having to migrate, women and children being left behind to scavenge for food, people losing land, animals and previous forms of existence. Outsiders have often seen famine and its impact as mass starvation. As found elsewhere, the issue for rural Nigeriens may not be so much one of hunger and starvation as one of dislocation that equates with loss of lifestyle [2].

In general, people consider the famines of the early twentieth century more severe than recent disasters. This is attributed to the lack of transport, roads, assistance and options available in earlier years. "There were no vehicles to either leave or bring in food." By the 1950s, road access and transport opened up and other foodstuffs became available. Cassava is said to have been

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[1] The OFDA disaster history for Niger estimates 85,000 deaths in the 1913 drought and 26,000 deaths for the 1931 drought. Sidikou (1974) estimates 30,000 persons died in the 1929-31 famine. Other famine mortality statistics were not found. For discussion of difficulty in estimating famine mortality see, especially Delehanty, 1988 and de Waal, 1989.

[2] Other research indicates that communicable diseases resulting from concentrations of relocated populations or opportunistic infection caused from nutritional deprivation cause more death than hunger and starvation; see especially de Waal, 1989 for Sudan. Also, epidemiological patterns from India show that famine years are followed by years of excessive rain and consequent malaria outbreaks that account for the majority of deaths for the famine year (Swift, pers. comm. citing Whitcombe). Further analysis of famine patterns for Niger is warranted.

introduced in the Tillaberi region within the past 30-40 years. More recent famines are associated with the distribution of food aid and with more individuals having millet to sell, loan or give. People distinguish the 1968-74 drought with the beginning of free food aid distribution. This is considered to be a major difference between famines of the past and today. The extent to which households have shifted responsibility for coping with drought to the national government and foreign relief assistance is unknown.

Several poor production years in a row are considered as devastating as a major famine. Each year reduces income and assets and the ability to cope. In the Ouallam region of Tillaberi department, villagers indicate that the few good years since the famine of 1984 (e.g., 1988) have been followed by poor production years. They are never able to get ahead in order to buildup insurance supplies. Certain locales in Tillaberi/Filingue region are experiencing a third year of poor production. Each year further drains domestic and productive resources. Villagers speak about exhaustion of assets, depletion of stores and increased migration -- indications of abnormal stress. Food on the market is considered cheap but they lack money to buy it. Fortunately, the 1991 harvest produced cowpeas and grass. "If it weren't for the cowpeas, you would not have found us here." The final and undesirable alternative is to move, searching for work and food elsewhere.

While harvests are largely defined in relation to millet yields as the staple food, farmers do differentiate between years in terms of secondary harvests as noted above. Years with adequate pasture production to support livestock are considered less difficult. And for areas of dry season agricultural potential, food and cash crop production in the dry-season take on even greater prominence in years of poor cereal production.

Respondents, in general, considered the 1984-85 to have been worse for sedentary farmers given the total harvest failure. The 1968-74 drought is considered to have been worse for pastoralists due to the successive years of low pasture production (recorded data indicate 16 years of subnormal soil moisture). Farmers state that during this period, there were years when they were able to cultivate and produce a marginal crop, so they did not reach the same level of destitution as did pastoralists.

Rural people expect frequent deficits. Superstitions and unwillingness to project future ills deter people from talking about likely scenarios but they do speak about the need to be always prepared. The ideal income/production strategy is one of saving and building surpluses in good years to draw upon in deficit years. A household's ability to do so is dependent upon its starting base of resources, competing needs and priorities. Likewise, the exact nature of the saving strategy takes different forms depending upon locale and preferences. The most common

insurance strategy across Niger, in the northern and southern regions and regardless of ethnic group, is investing in livestock, primarily small ruminants. In the absence of a viable rural financial system and minimal investment opportunities, livestock is the major form of savings. Keeping livestock as an insurance or investment strategy needs to be distinguished from keeping livestock as principal productive resources as practiced by pastoralists.

Drought, as the cause of the famine, is principally ascribed to the will of God. Some villagers see drought as a punishment by God for bad practices or rituals poorly or infrequently performed..."God deserted us". Drought is also seen as a warning sign from God that society needs to mend its ways. People refer to the increase in social ills and breakdown in moral ways and that drought is an admonishment by God. The impact of the subsequent famine, however, is related to one's asset levels, agricultural product prices and access to food.

People also refer to complications that famines induce such as the influx of people from outside the region. Such flows of people are seen as broadening the impact of a famine on the local residents. During the field interviews, farming groups in the southern zone, in particular, attributed the severity of the 1984 drought to the numbers of migrants who moved in from the north. The implication is that indigenous coping strategies break down under the pressure of famine-induced population movements. The extent to which such migration influxes overstress existing structures and cause social strife is uncertain. Reducing dislocation through appropriate mitigation interventions obviously will have multiple positive impacts.

1. Agro-ecological changes

Time was spent during the field interviews to better understand people's perceptions related to their agro-ecology and famine conditions. Respondents speak vividly about the agro-ecological changes they see occurring and the resulting impact on their lives. They list species (trees, browse, grasses, animals) which have disappeared or are rare. "The region used to be black with trees." "Before this land was full of antelopes, lion and hyenas." They also note other less beneficial species that have been introduced: for example, a gerbil-like rodent reported in Matamaye and a cricket-type that now lives year-round in the Belbedji area. Many villagers speak about water sources that have dried up and rivers that have become seasonal. In the western river cultures, people report changes they've seen in the Niger River. It is said to be narrower and shallower; it is filling up with sediments; and the once-prevalent grasses in and out of the water are disappearing resulting in soil erosion and loss of fish habitats.

People link the changes they observe in their environment to (1) climatic changes -- reduced rainfall, principally within the past 20 years which has caused decreases in the indigenous flora and fauna and (2) population increases. The latter has resulted in more villages, increased land clearing for cultivation, deforestation and decreased land per person. Most people make the link between decreasing rainfall and increasing population to land degradation. Increases in population are usually attributed to numbers of births. In some cases, however, respondents spoke about population growth as a result of in-migration where river basin villages with production potential or rural commercial centers have lured people to settle.

Villagers attribute lowered field productivity to (1) erosion, explaining that the reduced vegetative cover results in greater erosion and (2) decreased fertilization, saying that there are fewer livestock available since the recent droughts to manure their fields. Also, in the northern regions, farmers tend not to use animal manure under the current reduced rainfall conditions because it burns the crop - "using manure is like calling drought to the field."

B. Vulnerability

Vulnerability is a concept that best explains who suffers in a disaster/emergency. Vulnerability is defined as *defenselessness, insecurity and exposure to risk, shocks, and stress*. It is clear that famines do not affect all equally: some suffer, while others may gain during a crisis. In Niger, given the agricultural base of existence, it may be said that everyone is vulnerable to the vagaries of the weather. Yet, this is more so for some than others depending upon the local soils, ecology, alternative income sources, socio-economic-and political status. Even in drought prone regions within the country, where everyone is relatively poor, the impact of an emergency varies by socioeconomic strata.

In Niger, the 'soudure' or hungry period is a time of seasonal food insecurity. Food insecurity may be considered transitory because it occurs during only part of the year, but it is chronic in that it occurs every year (World Bank, 1991). The transitory food insecure, probably the most dominant group in Niger, have developed multiple coping mechanisms to carry them from one harvest to the next. In years of total crop failure or drop in purchasing power, however, periodic disasters occur. In contrast to the seasonally insecure, the chronically food insecure fail to eat enough throughout the year.

The more northern areas of Niger are generally considered to be more food insecure. Gradation of hardship in northern Nigeria during the 1968/74 drought was found to reflect the pattern of isohyets (Mortimore, 1989). For Mali and Burkina Faso, however, it

has been found that northern households have developed more diversified, multi-sectoral strategies and so are less dependent on rainfall levels. They compensate for lower per hectare productivity by cultivating a larger area per person and earn more non-cropping income which gives them more purchasing power to buy food. Southern households, in contrast, attempt to assure household food security through their own production and tend to purchase grain only when this strategy fails. The analysis of the Niger IFPRI data and future FEWS survey will provide important understanding related to this for Niger[3].

Vulnerability can be assessed at three levels:

1) Regions are vulnerable to food shortages (shortfall in food availability) as influenced by geographic location and institutional development, for example, the adequacy of the infrastructure to support agricultural and non-agricultural production, to distribute food to markets and to provide health services.

2) Households are vulnerable to food poverty. Food poverty is the lack of resources to obtain sufficient food for the entire household as influenced by income, cultural preferences, age-sex distribution and household composition.

3) Individuals are vulnerable to food deprivation. Food deprivation occurs when food consumption and utilization are insufficient to meet nutritional requirements as linked to nutritional, health and social status.

Household food security can be gauged as the degree to which food availability -- own production, exchange production, transfers and assets -- meet consumption requirements. Increased levels of vulnerability are linked to various socio-economic changes including (1) population growth and decreasing land per person, (2) migration where immigrants do not have sufficient knowledge of the surrounding ecosystem and lack kin support networks, (3) sedentarization of pastoralists who may be subject to land degradation, local crop failures and lack the mobility to seek distant pastures, (4) changes in land distribution from dispersed to consolidated areas that eliminate the possibilities for optimizing favorable micro-environments, (5) changes in land tenure from communal to freehold that increases vulnerability for those without rights or who obtain marginal lands.

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[3] Neither the IFPRI data for Burkina Faso or Niger include pastoral households. Recent household economic and consumption surveys have concentrated on sedentary farming populations.

1. Measuring Vulnerability

There is growing awareness that vulnerability is not necessarily linked to supply parameters of cereal production. To date, however, the national Early Warning System (SAP, Système d'Alerte Précoce) is based largely on cereal production figures and village deficit lists. FEWS is the only system in Niger that incorporates other data in assessing vulnerability. Currently, the system identifies three major groups: farmers, herders and urban dwellers though for the latter there is inadequate data to assess vulnerability. Farmers and herders make up 85% of the population and are considered to have the highest level of current vulnerability. The FEWS vulnerability assessment is based on quantitative (production, prices, health and nutritional status) and qualitative (alternative income sources) information from GON databases and reports for each arrondissement. Preliminary screening is based on cereals production (millet and sorghum) for agriculturalists and pasture production and terms of trade for herders. Terms of trade is measured by how much millet the sale of a buck (male reproductive goat) will buy.

Preliminary work has begun in the SAP to incorporate socio-economic indicators in the national early warning system. The DPM is to reinforce and broaden this start through support, primarily, to local committees in site and time-relevant indicator development. For any early warning system, however, the bottom-line must focus on the cost and quality of data collection and the use of data in provoking an appropriate response. Data must be accurate and timely and well integrated into a response system that can act.

A World Bank Food Security Mission in March-April 1991 used a set of indicators to classify arrondissements by risk level. Drawing largely on FEWS Year 1 vulnerability assessment, the indicators include: average cereal production per capita 1979-1991 and 1986-1990, variability of production (standard deviation), an FAO coefficient of vulnerability and number of health posts per village. Indicators were subsequently weighted (apparently rather arbitrarily) to equalize their importance. Arrondissements were ranked based on a composite indicator derived from the weighted average to categorize arrondissements as highly insecure, moderately insecure, slightly insecure and not chronically insecure. The classification, by necessity, is based on availability of data which may be of questionable quality and usefulness in assessing vulnerability. Also, there is the acknowledged lack of socio-economic information and because the analysis is based on cereal production, it largely omits pastoralists. Nonetheless, the classification provides a starting point for identifying chronically deficit areas. Reportedly, all interested parties in the GON and donor community see the need to improve the system for identifying vulnerable regions.

Table. Listing of Arrondissements by Food Security Level

Highly Insecure	Moderately Insecure	Slightly Insecure	Not Chronically Insecure
AGADEZ			
Arlit	Bilma		
Tchirozerine			
DOSSO			
		Loga	Birni N'Gaoure
			Dogon-Doutchi
			Dosso
			Gaya
DIFFA			
Diffa			
Maine-Soara			
N'Guigmi			
MARADI			
	Dakoro	Madarounfa	Aguie
	Guidan-Roumdji	Tessaoua	Mayahi
TILLABERI			
Ouallam	Niamey	Filingue	Say
		Kollo	Tera
			Tillaberi
TAHOUA			
TchinTabaraden	Keita	Birni Konni	Bouza
	Tahoua	Illela	Madoua
ZINDER			
Goure	Tanout	Matameye	Mirriah
	Magaria		

Source: World Bank, Food Security Working Paper No. 2, 1991

Because this classification is based on cereal production, other sources of income such as tourism and mining in Agadez do not show up nor do opportunities for trade with Nigeria in the southern arrondissements. Nevertheless, because of the overwhelming importance of cereals production to consumption, this list provides an approximation of areas suffering from food insecurity. Interestingly, several of the arrondissements considered to be emergency cases in 1990/91 and which received USAID-administered food aid, do not show up on this list as severely food insecure -- notably Tera, Tillaberi, Filingue, Mirriah and Matameye. Of note, also, is the fact that food aid is distributed according to accessibility (roads and security conditions) and established interests, not just according to need. USAID has historically provided to Tillaberi, Zinder and Diffa and not to Tahoua.

Cereal production is the basis of consumption. Millet is the priority food throughout Niger with cereals providing 90% of the total caloric intake. From the field interviews, villagers perceive food security in terms of millet production and/or exchange. However, cereal production is not an adequate basis for vulnerability assessment given the multiple activities in which Nigeriens are involved. For example, Bouza Arrondissement might be chronically deficit in cereal production but most households receive regular remittances from kin who are the major traders in the Niamey Bokoki market. And much of this incomes goes to support exorbitant marriage expenses, not food purchases (communication with Sous-Prefet, Bouza). Herders are typically classified as 100% deficit, but they may have substantial productive assets in camels and cattle. Purchasing power and accessibility of food must be the basis of vulnerability assessments; not static categories or production estimates.

Current demographic statistics for Niger are provided in the following Tables.

2. Markets, Transport and Communications

Of concern in assessing vulnerability and developing mitigation response activities, is how easily food moves from surplus to deficit areas and at what cost. Such movement may be constrained by government restrictions, urban dominance, poor roads, minimal transport and/or uncertain information about demand in remote places. Agadez, Arlit, Tcherozerene may be chronic food deficit areas but mining and tourism, for example, provide alternative economic possibilities to reduce vulnerability <u>if</u> the market functions effectively (for a discussion, see the Economic Analysis)

The poor are particularly vulnerable to adverse price movements. Farmers are not self-sufficient in production even in good years. Local traders hold the power to mitigate or increase the stress villagers face during a food crisis. Household vulnerability is closely linked to local market conditions which in turn are linked to the national and international economic situation. Can markets deliver grain reliably to grain-deficit rural households at low cost? Price volatility hits hardest the poor households that sell grain early in the season to meet pressing cash needs and then have to repurchase grain late in the season at a high price to meet consumption needs.

Table. Population by Department

	Population	% Total Population	Population density Person/km2
Agadez	208,828	2.9	0.3
Diffa	189,091	2.6	1.2
Dosso	1,018,895	14.0	30.1
Maradi	1,389,433	19.2	33.2
Tillaberi	1,725,720	23.8	17.7
Tahoua	1,308,598	18.0	11.5
Zinder	1,411,061	19.5	9.1
Total:	7,251,626	100.0	5.7

Table. Population Density by Arrondissement, 1988
(Persons per square kilometer)

Agadez		**Tahoua**		**Tillaberi**	
Arlit	0.3	Birni-N'Konni	47.7	Filingué	10.9
Bilma	0.0	Bouza	47.8	Kollo	23.1
Tchirozérine	0.8	Illela	25.2	Ouallam	8.6
		Keita	30.1	Say	11.3
Diffa		Madaoua	44.0	Tera	18.7
Diffa Arrond.	10.1	Tahoua Arrond.	24.5	Tillaberi Arrond	18.1
Maïne-Soroa	5.0	Tchin-Tabaraden	1.1		
N'guigmi	0.2				
Dosso		**Maradi**		**Zinder**	
Boboye	42.9	Aguié	57.6	Gouré	1.7
Dogon-Doutchi	26.3	Dakoro	14.5	Magaria	42.0
Dosso Arrond.	28.6	Guidam-Roumdji	42.7	Matamèye	68.9
Gaya	36.9	Madarounfa	80.6	Mirriah	37.3
Loga	21.4	Mayahi	32.7	Tanout	5.4
		Tessaoua	39.0		

Table. Ethnic Composition of Niger by Department (percent)

	Total	Agadez	Diffa	Dosso	Maradi	Tillaberi	Tahoua	Zinder
Arab	0.3	2	3			.1	0.6	0.2
Zarma-Songhay	21.2	4.3	.9	49.7	0.4	63.8	0.6	0.8
Gourmantche	0.3					1.1		
Hausa	53	31.9	6.4	38.6	88	13.1	80.2	73.5
Kanouri-Manga	4.4	4.1	58.8			0.1		12.2
Peulh	9.9	1.9	21.4	10.5	8.7	11.7	2.8	9.8
Tuareg	10.4	54.6	0.8	0.9	2.7	9.0	15.5	2.6
Toubou	0.4	0.7	8.0			0.1		0.8

Source: 1988 census, Rapport de Synthese, 1992

C. Who are the Vulnerable? Differential Levels and Impact

The above discussion of vulnerability and listing of food insecure arrondissements in Niger focuses on areas, not vulnerable groups. The question needs to be asked, within geographical areas, who is vulnerable to disaster and food insecurity and is it a food issue? The cause of food insecurity is not necessarily linked to agricultural production or lack of food. Rather factors of production, employment possibilities and adaptations of product income must be considered.

Typically the most vulnerable are households with minimal assets of land, livestock and labor. This includes the landless sedentary -- foreigners and individuals not attached to a village or administrative unit -- and pastoralists without viable herds. Within this asset-poor category, women-headed households, pregnant and lactating mothers, children under five, the handicapped and the elderly are particularly at risk. Other indicators of vulnerability include isolation that restricts access and diversification alternatives. Length of residence may be another vulnerability indicator as it relates to security, access to resources, and social networks. Particular interethnic discord may also play itself out in marginalizing particular groups in particular situations. Likewise, access to and extent of common property resources in providing fuel, food supplements, and fodder (home-use and income generation) may distinguish levels of vulnerability as such common property resources may be the primary source of livelihood or significant buffers in times of food shortages, as for landless Bella woodcutters ('Bella' in Zarma and 'Bouzou' in Hausa signify former Twareg slave class). The above-mentioned groups may be found everywhere, including urban centers. Urban vulnerability and directing assistance to the urban poor is an issue needing to be addressed.

While there is interest in categorizing populations to signify levels of vulnerability, such as herders, farmers, and urban residents, as done by FEWS, the variation within groups is great. Herders might be classified as nomads who do no cropping (whole households move) and agro-pastoralists. They may be classified as herder-owners or as hired herders/guardians -- the livestockless. Agropastoralists can be subdivided into transhumant agropastoralists, those who crop at one site but seasonally move all or some of their livestock and sedentary agropastoralists or agro-silvo-pastoralists, those who keep their livestock year-round close to their cropping activities. Even variations within these categories exist. Likewise, a range of categories might be distinguished for farmers to indicate differences in size of holding, tenure situation, household labor, off-farm income, etc.

Rarely do social groups pertain to one production system alone. Degrees of overlap exist between production systems. Even pure pastoralists rarely rely upon livestock as their sole source of

income. However, socioeconomic patterns are discernible to allow categorization of types as 'predominantly pastoralist' or 'predominantly agriculturalist' to indicate differences in response; for example, pastoralists are generally less willing to sell or slaughter livestock than are farmers.

Further refinement in vulnerability assessment is called for which includes levels of vulnerability within production system types as influenced by asset base, gender and age. Among pastoralists, for example, some are still nomadic but have had their traditional way of life affected by pressure on land. Some have been impoverished by recent droughts. Some have settled but are ill-equipped to take-up agriculture. With the upcoming FEWS survey and further work in vulnerability assessment, it is expected that it will be possible to categorize production types by level of vulnerability.

1. Social and Economic differentiation

Nigerien societies historically have been stratified according to status, prestige, political position and participation in patronage and gift-exchange networks. All the major ethno-linguistic groups in Niger - the Hausa, Zarma-Songhai, Twareg, Fulani, and Kanouri - have traditions of ascribed status that usually include the categories of noble, commoner, and slave. The Hausa society recognized three basic groups; the Twareg had five classes of gradation while the Zarma ideology recognized only the distinction between noble and slave. Specialized low-status occupational groups include butchers, weavers, metalsmiths, potters and leatherworkers.

The abolition of slavery stimulated major social changes. Many former slaves took advantage of modernization and French schooling to become dominate in national life. But differentiation and inequalities continue. Traditional elites exercise considerable authority within their territories. Freed captives often remain distinct and are physically separate from the dominant ethnic group settling in separate villages or neighborhoods. Conflicts of interest are not uncommon. Ascribed membership to a particular group plays a central role in social status, occupational choice and marriage. Women typically have had little social or political power and today, in various areas, are rigidly restricted under Islamic ideology. Such social inequities necessarily influence access to resources and levels of vulnerability. Work in northern Nigeria indicates that highly stratified gender societies have difficulty dealing with famine conditions.

Parallel with social differentiation is economic differentiation. As everywhere, Nigerien communities are composed of both the richer and the poorer. Seasonal shortages for some result in famine conditions for others within the same community. Poorer households with smaller holdings and fewer resources are more susceptible to

stress and begin to suffer earlier when shortfalls occur. The poor resort to early sale of livestock, sell labor, incur debts and borrow at higher interest rates. Simultaneously, the better-off buy livestock at deflated prices, sell or lend grain to needy farmers and purchase labor at depressed rates. Within a single community, a cycle of accumulation and decapitalization can occur at the same time (Frankenberger, 1991).

2. Perceptions of Individual Vulnerability

Time was spent during the field work to understand who villagers themselves see as the most vulnerable. This was not an easy topic to broach but the following findings provide some insight:

Villagers make a distinction between those people who are chronically vulnerable and those who are vulnerable in production deficit years. The chronically vulnerable include "those with small power". In this category are included old people without families to look after them, especially widows and the handicapped. Also, included are women-headed households since a single woman may be responsible for all the household's domestic and productive work. Large families with many noncontributing members also are put in this category of vulnerability. It appears that the lack of a family labor force is the primary variable in all these designations of vulnerability. People make a clear distinction between those who are able and willing to work and the 'lazy'. In famine years, old people and infants are said to suffer the most since neither has the strength to withstand food stress.

Other variables are linked to levels of nonchronic vulnerability that affect one's level of risk in production deficit years. These include the following:

- Livestock. People see livestock as a security against time of need. Having livestock equates with having a store of wealth so that one can purchase grain when needed or other consumer goods. The critical factor is in having some animals (even two goats) versus having none. Thereafter, levels of vulnerability (wealth) are linked to numbers and types of animals the individual owns.

- Land - Access. Households which do not have secure tenure are also seen as being more vulnerable in poor production years. This includes households whose head is not an indigene. They could be recently settled herders, emigrating farmers from other areas, or longer-standing community members who have no relatives or inherited fields in the village. Use of fields is obtained through loans and mortgages. During poor production years, loaned fields can be reclaimed at any time, even after planting and cultivation with the borrower receiving nothing for his labor. Also, mortgage costs may be increased during times of production shortfalls. The borrower may be forced to pay the sum demanded or give up the

field, exactly at a time when both money and field space are needed. The type and quality of land that one has access to, also, is a consideration. Newcomers generally are allocated the more marginal land. People with access to seasonally flooded lowlands and land of dry-season farming potential are advantaged.

- Land - Size of holding. The amount of land a family controls in relation to family size is also considered an index of vulnerability. Households which cannot harvest enough millet to store since they have small fields and/or too many members are considered to be particularly vulnerable.

- Occupational specialization. People who rely on a craft or a single source of revenue are said to be more susceptible to drought and disaster. Access to alternative income sources, including remittances from relatives, is considered an important addition to home production. Most rural populations lament the lack of productive alternatives.

- Depending upon the region and religious orientation, vulnerability is also linked to God's will. From a Songhai interview, "He who God wants to suffer will suffer regardless of the help given him by other men." Intra-site variability in yields due to climatic peculiarities is often explained in terms of religious fatalism, "God didn't grant it (good harvest) to that person".

Despite a history of declining yields, rural Nigeriens continue to live in marginal areas out of attachment to the land and in the belief that the future will be different. Having land is fundamental to one's existence and identity -- "without land, one has nothing". Also, there is the enigma of the unknown and the recognition that there is little land left for the taking. A common phrase is, "where would we go?" Many rural producers see their lives as a cycle of times when they are better off and times when they are not. As there have been other bad years (disease, famine, wars), so there will be again..."this too will pass".

3. Health/Nutrition Status

Health and nutritional indicators are often used in early warning systems to monitor vulnerability. Both child and infant mortality figures in Niger are among the highest in the world and are indicative of the country's overall wellbeing, or lack thereof: the infant mortality rate is estimated to be 145 per thousand live births and the mortality rate of children under five is estimated at over 300 per thousand. The following overview of Niger's health and nutrition sector is taken from a report prepared by Sylva Etian, Technical Advisor to USAID.

Because only about 10% of deaths in Niger are reported, reliable statistics on causes of death are uncertain. The leading causes of death reported in health centers for 1986 include: meningitis (42%), malaria (20%), measles (16%), diarrhea (10%), pneumonia (5%), and other causes (7%). Because of the extremely low vaccination coverage in Niger, these diseases are expected to continue as the leading causes of childhood deaths for years to come. Periodic epidemics of meningitis and measles are common. An initial mobile campaign strategy to reach Niger's dispersed population was fraught with problems of limited personnel and logistics. Now, there is a combined vaccination strategy of fixed centers (maternal and child medical centers, PMI, in urban areas and the medical centers, CM in rural areas) with outreach and mobile operations. Operational problems continue. Only an estimated 25% of Niger's population has access to fixed vaccination centers. An inequitable distribution of cold chain units has favored the lightly populated nomadic areas at the expense of the heavily populated sedentary areas.

A 1985 study of malnutrition levels in the seven departments of Niger sampled 1,960 children to find 25.2% chronic malnutrition (less than 80-85% height/age) and 16.8% acute malnutrition (less than 80% weight/height). From a 1990 survey in Tillaberi Department, children within the age range of 12-24 months were found to be most at-risk. Of this age group, 34% exhibited acute malnutrition and 40% showed chronic malnutrition. The age group of 12-24 months is most at-risk because once children are weaned, they are expected to eat the food which has been prepared for the family. There is minimal use of weaning foods. Also, children are often weaned abruptly and at an early age as a new pregnancy commences.

Malnutrition and poor health are perceived by villagers as medical problems so solutions are sought outside the community. To counteract this and to enable villagers to recognize the crucial link between development activities and nutritional status, UNICEF has supported a nutritional surveillance project, PCAN, Programme Conjoint d'Appui a la Nutrition. The project commenced in 1985 initially in the three arrondissements of Ouallam, Tchintabaraden and Goure. The nutrition of infants under three is monitored and recorded on individual charts as well as community charts. Community meetings are held regularly to review the nutritional status of the infants and to decide on development activities that will improve the community's food security (cereal banks, boutiques, gardening, small animal stocking). This community-based model is being extended as the basis for a national nutrition program.

No simple or direct relationship exists between consumption and nutrition. Research in Mali found that the rate of protein and caloric malnutrition in the south is among the highest in the country despite the fact that the south is the most productive

agricultural zone. No statistical correlations have been found between family food security and the nutritional status of children within the family. However, a well established relationship does exist between children's health and household nutritional levels and the educational level of the mother and her control over income. Given the very low educational levels in Niger, however, years of women's schooling is not likely to be a possible indicator of vulnerability for years to come.

D. Economic Diversification Strategies

Despite conventional images of the Nigerien producer as being self-sufficient and subsistence-oriented, rural households are engaged in an active monetized economy. The full IFRPI analysis of household economies will broaden our knowledge, but preliminary results point to the importance of non-agricultural incomes in rural Niger. In an ICRISAT Burkina Faso survey, non-agricultural income was found to supply approximately half of the total rural income. Economic diversification is fundamental to existence in the climatically unpredictable Sahel.

Much of the economic diversification one finds in rural Niger, however, is small scale with limited revenue earning power or potential for expansion. Income generation is typically not organized and market transactions are high so that benefits are reaped by an outside merchant, trader or intermediary, or the one who commissions the work.

Despite the multiple activities one might be engaged in, rural populations see themselves as crop and/or livestock producers. In sedentary villages across Niger, the only people who do not crop are the old people, butchers (usually Hausa) and the forgeron (metalsmith). Reportedly, butchers earn enough income so they do not need to farm and the metalsmith often benefits from community work groups who crop for him. Millet is always perceived as the primary crop even though cowpea, onions, peppers, other cash crops and crop by-products generate more income. The IFPRI results caution against exaggerating the importance of crop sales in generating purchasing power. The data from western Niger indicate that crop sales account for only 10 to 25 percent of income, with an average of about 15 percent.

For the IFPRI survey of 100 households, most households produced enough millet in a 'good year' (1983-84) to feed themselves for at least a year after harvest in both the northern (Ouallam area) and intermediate zones (Boboye area). In the drought year of 1984, the average household was able to feed itself for four months from its harvest. By 1985, only about 1/3 of the sample households were able to make it through the year on that year's harvest. Purchasing power, however, was found to be similar between years, suggesting that there are other sources of income which compensate

for the fluctuations in crop income. These results point to the importance of non-agricultural activities throughout the year, not simply in the 'off-season'. In Niger crop purchases are described as very substantial across all zones: from 34% of consumption in the southern zone to 49% in intermediate zone. Everywhere millet is the most purchased cereal. 30-60% of net crop purchases are paid for with off-farm income that includes migration earnings.

In the Western region, top sources of revenue ranked by respondents include cropping, metalsmithing, commerce, migration and livestock. Depending upon the site, gardening is included as well as remittances from relatives, including salaried relatives living in urban centers. Fulani who settle (temporary or longer-term) close to farming villages tend to rely on revenues/exchanges obtained through herding livestock, milk production, and manure contracts with farmers.

Economic diversity is linked to cultural norms of what is considered acceptable work. As already noted, Nigerien societies have systems of specialized occupational classes which influence the options a member of the society considers as available or possible. In the wake of a declining economy and successive deficit years, such status and caste prescriptions are breaking down. People are taking up work and moving into occupations they once refused to do. For example, one finds Toubous drawing water for animals and Bororo taking up farming. Certain of these changes may be only short-term as destitution measures until the former lifestyle is recaptured. Others indicate long-term adaptations. Reports from Diffa indicate that upper class Toubou women are weaving baskets and mats though they would not admit it given attitudes toward manual labor. Moving into other regions, people may perform work that they would find too undesirable to do at home. A negative consequence, however, is the displacement of the poor who customarily hold these low-status jobs.

Stocks and quantities of stored grains are often suggested as indicators of food security levels. However, these are difficult data to collect since the contents of granaries are often a confidential matter. Also, evidence of surplus may necessitate sharing so real stocks are not divulged. A Hausa custom has been to reserve the 'gandu' (family) granary until the next cultivation season in order to feed laborers during the intensive cultivation season. The extent to which this prevails today is uncertain. Nor is it certain how closely data on stocks reflects security levels of different types of households nor how easily such data could be collected.

Migration (Exode). Perhaps, the principal income diversification strategy, and the most lucrative, is migration. Migration has always been a fundamental feature of Sahelian economy and society. The pre-colonial pattern that involved mass movements of people, however, has been replaced by the modern periodical

migrations of labor to meet cash needs. While historical comparative data are nonexistent, most researchers consider that today's labor migration is more integral to household reproduction than in previous times. This is due to the increasing intensity of monetary pressure, the decreasing ability of agricultural to satisfy consumption and exchange needs, monetization of brideprice, increasing opportunities for off-farm employment in the capitalist economy, etc.

The pattern and significance of migration varies by region, ethnic group and gender. In some regions, migration only takes on significance in poor production years. In other areas, such as Zarmaganda and Tahoua, it is one among various diversification strategies and is practiced regardless of production year. Other groups and individuals do not engage in migration. For example, the Fulani and other pastoralists including the Toubou and Arabs are less likely to migrate. When they do so, it signals distress such as during the 1984-85 drought when 65% of the WoDaaBe herder households in southern Niger reportedly resorted to labor migration (White, 1984).

Migration takes various forms in Niger:

short-term seasonal migration of men usually to the coastal countries; men leave shortly after harvest and return at the time of planting; often an annual pattern.

'rites de passage' of young, unmarried men who need to earn money for clothes or marriage expenses; they may migrate to urban centers or to nearby countries.

longer-term migration of young to middle-aged married men; they may spend more than one season, up to several years.

migration of women; Bororo women migrate freely. Zarma and Hausa women may accompany husbands to either support the husband or to earn an independent income. In most cases, migration of women may signal a distress situation.

distress migration of men, women, and/or whole families in times of major food shortages when all other coping mechanisms have failed.

Besides the above mentioned forms of migration, there is an estimated 1% of the rural population that migrates to the cities each year with Niamey being the principal target. Likewise, within Niger there are the seasonal migrations of transhumant pastoralists and the rural migrations of ethnic strangers moving into other rural regions to perform work considered demeaning by local people. Also, one finds the movement of agricultural wage laborers who circulate to areas of labor demand. Squatter settlements on the periphery of urban or village centers may also be considered a form

of migration. This appears to be a common strategy among the semi-sedentary Fulani and Bella who settle for the dry season close to population centers in order to engage in small income-earning activities available there.

Particular migration patterns appear to depend upon culture, individual preference, land tenure situation, alternative opportunities and expected returns, among other things. From the field interviews, migration, in certain locales, is equated with abandoning one's land and is only practiced as a last resort -- "if one has no land, one has nothing." The decision as to whether and when to migrate may be linked directly to tenure security. Households with secure land rights may feel freer to migrate than those with only usufructuary rights since the latter risk having their land appropriated while they are away.

The ability and willingness to migrate also appears to depend upon family size, labor availability, and stage of family development, that is, whether there is someone to leave behind to care for one's interests. It is possible that the very poor do not consider migration as an alternative since it requires a minimum level of resources to make the journey and/or to be able to leave one's family behind.

Certain areas have long, established traditions of migration with regular end-points and established connections (including kin) at the destination site. In general, the Zarma/Songhai of the western region go to the Ivory Coast, Ghana, Benin and Komabangou in the Gourma region on the border with Burkina Faso to gold mines. Residents of central Niger often go to Nigeria. The northern residents and Arabs move towards Libya while the easterners migrate to Nigeria and the Lake Chad basin. Northern Toubou who migrate to Lake Chad lakebed do so for the sake of their herds while the Kanouri do so in order to take advantage of farming and fishing opportunities. Migration may be used by the nomadic Twareg for the sole purpose of earning money in the hopes of restocking their herds in order to return to their nomadic lifestyle. From the field interviews, there was the general consensus that migratory earnings are less and buy less than in previous years. Also, there is concern about the deteriorating political climate in the receiving countries.

There is much imprecision in current knowledge related to migration in Niger - migration rates, levels of earnings and impact on rural productivity and household welfare. Painter (1986) gives annual migration rates of 1.7% to 5% of the national population with 4-10% of all migrant age males. Levels rise depending upon the region. In Dosso area, it has been estimated that 25% to 60% of the migrant age males are absent each year during the migration season. And in two Tillaberi Department villages, over 90% had at least 1 labor migrant (ICRISAT). There is also much speculation about levels of earnings and impact on household incomes and productivity. The

principal use of migration earnings appears to be to purchase grain. The Mission waits the IFRPI household survey analysis to clarify and quantify the incidence and impact of migration on rural Nigerien economies and role in famine mitigation.

Since 1984, it has been the GON policy to reduce labor migration. Many projects with dry season components have the expressed objective of decreasing migration. Yet, migration (1) has a long history in Niger, as in the Sahel as a whole and migrants have compelling connections in other locations; (2) plays a significant role in the regional economy (positive and negative aspects) and (3) is an economic necessity in climatically uncertain environments. Not only does migratory wage labor bring in cash, but it relieves the household of feeding the migrant during a time of regular food shortage. There is indication from the Keita Project and other locales, that migration is reduced when there are viable dry season cultivation opportunities. But, by and large, migration would seem to be a continuing strategy, one among many, for Nigerien households.

The issue for early warning systems in Niger is to differentiate between migration that is part of the household's normal economic strategy and migration that signals heightening levels of stress -- mass migration of whole families is too late. No standard indicator for Niger as a whole will be appropriate.

E. Coping Strategies

There is much interest today in the role that coping strategies play in mitigating famine. Coping strategies are defined as the methods households use to acquire food when more conventional methods of production and purchase are unavailable. Because preparing for, adjusting and adapting to adverse climatic conditions is fundamental to rural life, it is difficult to separate coping strategies from normal income diversification strategies. Life in Niger is harsh: if rainfall is sufficient in quantity and distribution, then there is always the threat of insects, rodents, foraging animals and/or thieves. To cope, people have developed a variety of adaptive mechanisms that are continuing to evolve. These include the use of drought-resistant varieties, extra weeding and moisture-retaining cultivation practices, crop relays (for example, replacing poor millet germination with cowpea), micro-site exploitation within a field, increased dry-season production, borrowing, keeping livestock, using substitute foods including wild foods, labor migration, praying, increased handicraft production. From worldwide research, three major types of coping strategies have been categorized:

Economic strategies, as previously discussed, are the basis of product diversity that characterize Sahelian production systems. Farmers spread risk by cultivating a variety of crops that respond

differently to different production conditions and by mixing livestock species that make use of different types of grazing resources and quantities of water. Economic diversity is further extended through off-farm activities and labor migration. Smallholders work to accumulate resources that can be liquidated in times of need. They store grain, livestock, personal possessions, implements and labor through opportunities at home and away. The need to exploit the latter accounts for the significance of spatial mobility in semi-arid economies. In interviews with Black Twareg in the Tera region, respondents stated that in years of adequate cereal production, their primary expense is livestock which smooths incomes over expected bad years.

Social strategies are those which redistribute available resources in the family, clan and age set. Sharing of resources within a community is based upon the concept of reciprocity. Help at one time may mean repayment of assistance in the future. The range of reciprocal activities is great including loans or gifts of money, food, and/or animals, splitting of herds into smaller units, sending children to live with relatives, encouraging children to eat with neighbors, and marrying young daughters to wealthy men in expectation of assistance.

Ecological adaptations include such practices as strategic planting of different crops related to soil qualities and micro-variations, systems of fallow rotations, manure practices, intercrop nitrogen-demanding grains with nitrogen-fixing legumes and movement patterns of pastoralists that access wet and dry-season grazing and water.

1. Stages of Coping

Coping strategies vary by stage of the food crisis, by locale, socio-economic status and the local economy. Drought induced disaster does not spring up in one year. Rather it is slow and progresses over several years. It is clear that people progress through discernible stages in a downward spiral to the collapse of their livelihood and destitution. These stages have been identified from case material in Africa. They apply equally well to Niger:

Early Stage: Insurance mechanism, "asset conserving". Responses undertaken in the first stage of a coping strategy are a form of self or interhousehold insurance. Many have been developed to cope with predictable and nonsevere risks. Being able to draw upon these responses, depends upon 'building-up' during noncrisis years, such as acquiring surplus livestock, buildup grain stocks, invest in valuable disposable goods such as jewelry and household goods, develop systems of reciprocal obligations, safeguard reserves of wild foods. These responses usually involve the use of available family resources and do not entail the permanent loss of productive assets. Examples of insurance mechanisms include

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changes in cropping and planting practices (dry season gardening), sale of small stock and possessions such as jewelry, reduced consumption and ceremonies, gathering wild foods, use of inter-household transfers and loans, increased petty commodity production, migration for employment.

Mid Stage: Disposal of productive assets, "asset stripping". Asset stripping strategies jeopardize the future economic welfare of a household. Recourse is taken in the wider system of interaction where market and social relations are more important. In these responses, people begin to liquidate assets to the ease shortage. Examples include the sale of livestock and agricultural tools, sale or mortgage of land, credit from merchants or money lenders and further reduction of consumption.

Late Stage: Destitution. Responses taken during stage three are terminal and leave the individual virtually assetless. At this point, all productive assets are sold and people are forced to migrate to towns or relief centers. During the field interviews, people listed behaviors resorted to in past famines: consumption of own livestock, sifting millet grains out of the sand, consumption of undesirable famine foods such as Balanites aegyptica leaves and doum palm roots, stealing food.

Indicators can be identified for each stage in a food crisis for monitoring conditions that would suggest worsening situations and heightened food insecurity. Location specific indicators are necessary given the time and site specificity of food security.

The stage that is reached when a famine eases largely determines the individual's ability to recover. Different interventions will be appropriate depending upon the stage of the food crisis. Productive assets which are lost in distress sales may be difficult to reacquire (e.g., herders in Sahel who lost herds, had to turn to other livelihood sources and find it impossible to restock). The poor, those with fewer resources to bring to bear, enter the sequence first and move through the sequences more quickly.

Behavioral responses that people cited during the field work relate to the final or destitution stage of a food crisis. Yet, it can be assumed that not all Nigeriens reached the same destitution stage nor that all responded in the same fashion. The listing of famine responses from these oral histories provides an idea of what must have been the key coping strategies at the time. Several names reflect very unusual circumstances "sell you children" and "turn your back on people" or introduction of new foodstuffs - "the year of the manioc flour" which over time have resulted in changes in diet and consumption patterns. Some of the responses indicate new behaviors while other behaviors are expansions of known strategies. The Mobeur people in southern Diffa refer to drought of the 1970s as when exodus to Chad began in earnest as a yearly movement. Other common responses include borrowing, reducing food consumption

and changing eating habits to include famine foods and bran, increased mat-making, migration to the city to garden or work as laborers, begging, selling animals and equipment, smuggling of oil, gas, sorghum (engaged in by men and women), selling or mortgaging land to obtain money to buy food. Several referred to their strategy of destocking and selling animals before times got too bad.

Wealthier herders rely on their herds while others have become involved in a variety of income earning activities including crop production, sale of wood/straw, crafts, labor, marabout and small commerce. The WoDaaBe see their principal coping mechanisms in time of famine as selling jewelry, medicines and emigration. Interviews with 60 Twareg herders of the Eduk-Kao, Tahoua region found the following responses to the 1984 drought (Cord et al., 1986): canceled migration to cure salee; stayed in familiar region; destocked; sold drought sensitive species (cattle and sheep) to buy goats and camels; took up cultivation in seasonal ponds; purchased feed supplements. The more successful herders reduced their herd size early, stayed in familiar territory rather than migrating, kept mainly goats and camels and rather than purchasing other animals they stocked cereals and feed supplements. Marabouts and forgerons who keep smaller herds and have alternative income tended to do better. The authors offer various recommendations to mitigate disaster tailored to local and regional needs. These include supporting traditional strategies of animal movement, stocking feed supplements in good years at local and regional levels, early harvesting of failed crops to feed as livestock supplement later in the drought, promoting timely herder destockage, initiating herder's saving schemes to preserve capital gained through animal sales, undertaking specific animal health programs and creating opportunities for earning alternative incomes.

2. Selected examples of coping strategies.

From the perception study field work, the following coping strategies were highlighted:

Mat making. Mat making is a regular income generating activity, particularly for women, in many regions of Niger. Mats, baskets and ropes are made from the doulm palm (*Hyphaene thebaica*) which regenerates spontaneously from underground rhizomes. Mat making is time-consuming but easy to learn. Both women and men referred to increased mat production during deficit periods in order to generate money to buy food. Fulani and Bouzou women in the northern region of Zinder, in particular, who have few mitigation alternatives see mat making as their primary coping mechanism. "You can take mats to market and get some food". Urban demand seems to be remarkably elastic. Men also see rope making as a prime coping strategy.

Wild and Famine Foods. Edible plants have strategic significance in the rural food supply throughout West Africa. Their use is not limited just to times of drought nor to the poor though use is culture-specific. Women and girls work to collect most of these foods. In good years, leaves, roots and fruits are used to supplement staples and as critical nutritional snacks, especially for children. But these foodstuffs are brought into different and more intensive use during time of food shortage: different plants are used and different people are involved. Nomadic Twareg of the Ouallam area were quick to note that they do not collect wild foods. It is considered a Zarma activity. Likewise, Fulani women only gather wild foods during famine times.

In Western Niger, the Songhai and Zarma women and girls have a traditional role in gathering (and selling) wild foods. Differences exist between those wild foods which are gathered and eaten as a regular part of the diet, those eaten primarily during the soudure to save money and to stretch the food supply, and 'famine foods'. Reportedly **haasu** and **goronfu** are only consumed when people are starving. Cram-cram seeds are considered so distasteful and are so labor-intensive to process that they are only consumed when one is desperate during a famine.

Given the strategic role of wild foods as nutritional supplements and as famine foods in mitigating starvation, there is the urgent need to ensure their survival. Reports from some areas already suggest the disappearance of certain species. Further work would seem warranted in identifying species, indigenous technical knowledge related to use and methods for assuring their succession.

Dry-season farming/gardening. Dry-season gardens are widely regarded as a famine mitigation activity depending upon soil quality and water availability. In Niger, off-season cropping activities include irrigated and non-irrigated (recessional agriculture) agriculture, from small- to large-scale. In 1984, the GON initiated a major program promoting 'contre-saison' production with noticeable results across the country. Most all PVO/NGOs and development assistance programs include a gardening component (often for women) using hand or pump wells for irrigation. Most have promoted European garden crops such as carrots, lettuce and tomatoes. These gardens may serve as an important nutrition source during production deficit years. In many places, however, gardening declines in good cereal production years probably due to marketing constraints, competing priorities, and opportunity costs. At many sites, wells and pumps are broken down. For some, there is no interest to garden given difficulties and cultural mores related to manual labor. Some projects, notably ISAID in Filingue, are experimenting with indigenous gardens that integrate local crop, browse and tree species. Results from Jonathan Otto's recent consultancy on PVO/NGO gardening initiatives will be useful.

Where dry-season farming or gardening functions as a cash-crop and not just for home consumption, expansion and changes are observed -- cash crops include onions, peppers, potatoes, manioc, and wheat as well as the more perishable lettuce and tomatoes in certain locales. In the N'Guigmi area the primary income source in 1992 appears to be melons given the failure of the millet harvest. Melons and squash are planted in small depressions, protected by thorn hedges, and mature on the humidity retained by the heavy clay soils. In the Tahoua Department, dry season cultivation of 'dolique' or 'lab-lab' (pigeon pea, *Cajanus cajan*) in river valleys and depressions for food and fodder has expanded greatly in recent years and is considered a significant drought mitigation activity. Reportedly manioc and sweet potatoes were introduced into the Filingue area by a Hausa cultivator within the past 40 years. Previously, cotton had been the sole crop. European-style vegetables have been introduced within the past 10 years. Where garden products are marketable, gardening is on the increase.

As found in other research, there appears to be a correlation between areas of high gardening potential with a stable market outlet such as in regions of Matameye and low levels of local out-migration. Such areas, in fact, are drawing points for migrants who, in bad years, come to work in these gardens ("even the Bororo," stated one Matamaye respondent). In potentially high production regions such as along the river in Diffa Department, the difference between a poor production year and a famine/catastrophic year is having irrigated dry-season fields. The evidence that villages further away from the river and lakes tend to disappear while those closer to such water sources are growing would seem to confirm this.

Consumption patterns. Millet is the preferred staple throughout Niger followed by sorghum. Cowpea, the third crop in net production is largely produced for sale though consumed in some regions and pigeon pea, similar to cowpea has expanded considerably in the Tahoua Department over the past years as a dry season crop. The IFPRI data shows the importance of maize in poor production years.

Consumption patterns are of interest since they may indicate early stages of a food stress. What people eat and how often are largely dependent upon the food production base and cultural preferences. Again, the field data underscore the variations found across Niger making inappropriate the use of any standard indicator. The following excerpts provide a few examples:

> Traditional Twareg of the noble class consume only millet, milk and milk products and meat including meat juices. In the absence of milk, the customary 'boule' is prepared with water. No vegetable sauces or wild foods are consumed. In one camp visited, a dry season garden was proudly displayed but it is the slave-class Bella who do all the farming and consume the

crop. The nobles do not eat the garden crops.

In a marginal production zone in western Tera Arrondissement, the long-settled Black Twareg discount any possibility of dry season farming. They rely almost exclusively on a millet-based diet and purchase a few sauce ingredients (mainly dried okra) from neighboring farmers.

Songhai villagers along the Niger River in Tera Arrondissement enjoy a highly varied diet that includes millet, sorghum and bean dishes as staples supplemented with a wide variety of fruits, vegetables, fish, meat and animal products.

Seasonal differences in consumption are notable. Across rural Niger, it is a common practice to decrease food consumption as the dry season progresses. At the time of harvest, villagers often make a point of eating well. Hopefully, the harvest stock will last through the cold season during which time the diet may be supplemented with other foodstuffs obtained through exchange (women for example winnow rice and millet for others and are paid in-kind) or from dry season production. During the soudure, people ration food and perhaps, mix in wild foods to stretch the food supply. Livestock is sold as necessary to purchase cereals. A common practice is to reduce food consumption to two meals daily. Among some, one meal is prepared for a 24 hour period (reported by marginalized Bella north of Niamey). Toubous of the east, in contrast, report that they never eat only one meal, not even during the soudure, since the children cannot support this. In a relatively wealthy zone such as the Tera River zone, consumption patterns change during the soudure but not radically -- little or no meat is eaten in order to save income. Meals continue to be prepared regularly but in smaller portions.

Another common practice appears to be the replacement of the morning meal with tea, particularly among herding populations. Tea serves to mitigate hunger. In large part, tea has replaced milk in the herder's diet. It is, also, a major expense. Its rate of consumption may serve as a rapid proxy of wealth among particular groups. Also, of interest is the nutritional consequence of tea drinking in replacing other foodstuffs.

F. Drought-induced changes in rural societies.

Besides the changes in consumption patterns through the introduction of new foods, respondents note various other changes resulting from the recent droughts. The 1970's drought saw Toubous switch to camels from a tradition of cattle production. Likewise, while dry season gardening was known in various regions throughout Niger, it became a primary coping mechanism as a result of the 1984 drought. At this time, pepper production in the Diffa area took on importance which continues today. The same may be said for the

significant increases in onion production in recent years. A not so positive change, has been the urban-pull.

Food deficit situations amplify economic disparities and have a differential impact on the poor. The change in the concentration of livestock ownership from traditional pastoralists to urban-based owners in Niger as a result of the 1968-74 drought is but one example. Among the pastoralists themselves, research among the Kel Dinnik Twareg of central Niger, shows that the larger producers had distinct advantages: superior command over resources including possession of surplus animals, ability to recall animals loaned out on contract and access to social insurance networks. The drought did not result in a uniform decline of the pastoral system. Rather producers without the social and economic resources to contend with the elevated risk, fell-out of the pastoral system of production. The poorest groups have been least able to reconstitute their herds. This underscores the importance of maintaining some assets. Drought and famine may impoverish all, but relative poverty is centered among the resource-poor. Permanent loss of land through land pawning is another impact that appears to be growing and is disproportionately borne by the poorest households resulting in land concentration among the wealthier. There is no question that drought brings about a significant concentration in the social distribution of rural capital.

G. Gender Differentiation

Rural women are involved in different economic activities than men and they control their own sub-economies within the household. Consequently, women take on different roles during food crisis related to their role in food production, consumption, storage and preparation. Often, as de facto or de jure heads of households, they carry significant roles in providing for their dependents during food insecure times. In areas of heavy male migration, women, children and the elderly are often the only ones found in a village during the dry season. Women often have the full responsibility for dry season gardening, crafts, small commerce and small stock management as well as the arduous domestic tasks in the absence of migrating men.

Across Niger, men are largely involved in livestock marketing though women often own the majority of the small stock. Actual decision making concerning decapitalization in times of food shortages is unknown but it is assumed that women's contribution to household food security through small ruminant production is considerable. The role of women in gathering wild and famine foods has already been noted. Food preparation decisions and allocation of reduced portions are largely taken by women. Depending upon the ethnic group and class/caste structure, women work for others to obtain in-kind foodstuffs for the household. In crisis years, women regardless of social taboos, migrate looking for work and to

search for food. Such female migration usually signals a later stage food crisis situation, except for Bororo women who migrate normally.

The IFPRI analysis will provide useful information on strategies households use in assuring food security. Further work is needed to link particular coping strategies to household differences since it is established that coping strategies not only vary by stage of the food crisis but by income level, gender, ethnicity and micro-economic situation. A useful future endeavor will be to document actual coping mechanisms and their timing/sequencing by different households and individuals in the same community. This will require a larger sample and the stratification of populations by income level. Yet, even with this information, care will be needed in interpretation and use since the sequencing and use of coping strategies varies by famine condition, the year, community structure and external factors.

H. Traditional Assistance

Systems of inter-household loans and gifts have evolved to deal with regular and non-severe food shortages. Not all members of a society have equal access to resources but in many situations the wealthy have had obligations to support the poor in times of difficulty. Forms of traditional assistance vary by region and cultural mores. The more common ones include forms of charity, alms, in-kind transfers that include inter-household gifts and cultural norms of sharing food. Such forms of assistance usually operate between family and kin members but may extend to include neighbors, friends, and influential figures such as the chief, marabout, and alhadjis. Types of local aid include gifts of food or money, loans and employment where labor is paid in money or in-kind. A common form is the sharing of labor and redistribution of benefits during harvest when participants assist in harvest and post-harvest activities (women) and receive a portion of the crop as payment. Women typically receive in-kind transfers of food as payment. Men may be paid in-kind, in cash or in exchange for land use rights. The Fulani have a well-established system for redistributing livestock wealth. In the haBBanae system, an individual gives a female animal to another and after the female has given birth twice, the animal is returned. Other ethnic groups have similar, though often not so well-regulated systems, for sharing livestock wealth.

As previously mentioned, reciprocity is firmly embedded in Nigerien culture, serving as an insurance mechanism. A Wolof proverb from Senegal may be applicable throughout West Africa, "A man without debts is a man without friends." Debts, or claims (a form of assets), represent personal ties, and personal ties represent security during crisis. Results from the IFPRI household survey in Niger indicate that households are as willing to transfer crops (to

cement social relationships) as to sell them.

It is commonly observed that inter-household transfers and loans increase in the early stages of food shortages but they dry up as the crisis deepens and becomes prolonged. When many members are all subject to the same risks at the same time, effective risk spreading becomes futile. From interviews in Tanout arrondissement, villagers described the system of loans and inter-households gifts as having a levelling effect -- all members of the community fall to the same level of need by harvest time. In many areas, villagers note that they no longer engage in personal loans since repayment is so uncertain.

Traditional Islamic injunctions depend upon one's resource base and seemingly are not practiced by many in the villages visited. Sadaka refers to any token form of assistance whether it be a bowl of food or 5 cfa as alms given to the poor. Zakat refers to the tithing that is a percentage of a person's annual wealth. This was expressed in various forms during the field interviews: for those with animals, zakat is the yearly tithe of 1 goat for every 5 camels or every 40 goats; one bundle of millet out of every ten; one tenth of the harvest given to (sometimes solicited by) the poor, malams or needy kin members. The actual practice of zakat today is uncertain; there is some indication that it may be given to village chiefs and influentials rather than to the needy. During Ramadam, some heads of families give a certain number of measures of grain per family member as assistance to another.

The needy request assistance from those perceived to be wealthy. This may be the chief if he has the reputation of being charitable and "good". During the soudure, it is possible to find lines of nomadic herders in front of the 'chef de groupement's' house waiting for assistance. In numerous sedentary villages during the field interviews, people noted that they do not go to the chief for assistance because it was said that he only looks out for his own family.

The IFPRI data suggest that inter-household gifts are relatively insignificant which may imply a break down in the traditional safety net whereby the poor received help from others. Certainly, social insurance networks do not work for newcomers or 'outsiders', a particularly vulnerable group. Likewise, access to donations and remittances depends upon a network of relatives and institutions that correlate to household status. The wealthier more often have access to borrowed food, have greater access to credit and other social support networks. Destitute households, those in need the most, usually do not have the family or client networks to call upon. They are major beneficiaries only in time of severe drought. An example of this comes from the Twareg, where among upper-status herders, there is considerable circulation of animals between friends and relatives through gifts and loans of varying duration and conditions. Such assistance, however, does not apply to the

lower-status Twareg. The latter lack access to such credit networks and have more limited ability to reduce risk through intra-household relations since they lack access to redistributive networks (Starr, 1987). Also, among the Twareg, *tamesadeq* is a gift from rich to poor which is motivated by Islamic piety. However, it is "Given to impoverished ineslemen, sometimes to poor former vassals, but is given to iklan (Bella) only under extreme circumstances. "

Among villagers interviewed, there is the perception that traditional forms of assistance are decreasing. Various explanations were proffered including the general breakdown in social morality, "People just don't care anymore" and the overall economic decline whereby people lack the means to help others. "Traditions have diminished - most people are poor now." "When there is no harvest and no animals, then there is no tithing." The growing rate of individualism was also noted. One iman mentioned that in the past, when there was warfare and slave-raiding, assistance among individuals and within the community was stronger. People lived in communities as protection against the common threat of attack. Since the arrival of peace, this unity has broken down. The iman's analysis is that people have become divided -- they live apart from one another and show little solidarity in work and charity.

I. Food Aid

Critical in famine mitigation activities is to know when traditional coping mechanisms are breaking down -- when a situation indicates abnormal stress and when deficits are part of a normal cycle. Researchers caution against upsetting indigenous effective and low-cost means of reducing food deficits with building increased reliance on often less reliable and more expensive support structures provided by governments and relief programs. Since the 1970's food aid has had an impact on rural Nigerien lives. A continual concern must to ensure that this impact is positive and that dependencies are not built or local coping mechanisms eroded.

During the perception study field work, questions were asked of respondents related to their perceptions of food aid that had been distributed over the past years. The focus was on emergency food aid as distinguished from other forms of food distribution such as that provided more regularly as part of a development project as food-for-work. Distribution of food aid in Niger has been fraught with problems not least of which is the general opinion that food aid is a 'gift' to which the better-off and more important have first right (E. Koeniger, memo).

From the rudimentary findings, it appears that people do not see free food aid as making much of a difference in their lives except

in famine years when they are destitute and food aid quantities are substantial. Even then, people returned to their villages to plant, not just to obtain food aid. While villagers indicated that quantities received in non-famine years (famine years equated with 1974/75 and 1984/85) were inconsequential, the extent to which these supplies helped to reverse divestment is unknown.

Reports obtained during the field work testified to a wide range in quantities received and access within the same area. Often, it appears that itinerant herders or recently settled slave castes do not receive. Where herders have long-standing, positive interactions with settled farmers, no reports of partiality in food aid distribution were reported.

Villagers favor work aid because they see it as regular income rather than being uncertain amounts available through free distribution. "Free food aid only comes when you suffer, and you have to be lucky to get it." Only the elderly requested free distribution since they considered themselves unable to work and a few Bororo who disdain manual labor. Irregularities in distribution were noted with many stating that actual amounts received were reduced due to all the hands in the pot. One wealthier respondent noted, "The poor people never get much because the chiefs have their own priorities." Little confidence is placed in the existing system as being able to properly handle free food assistance.

IV Participation in Disaster Mitigation

To date, the majority of disaster assistance in Niger has been in the form of food aid to people in localized deficit areas or on a widespread scale as during the famines of 1974-75 and 1984-85. The current DPM program focuses attention on the issue of longer-term food security by including mitigation activities which seek to arrest the impact of the current emergency while reducing vulnerability to future emergencies. Mitigation activities are defined as those activities which 1) abate the impacts of the current emergency while reducing vulnerability to future emergencies, 2) target conservation of productive assets at the household level and 3) reinforce and build upon existing patterns of coping.

Mitigation activities include a variety of possibilities that might use food, commodities (feed supplements, small ruminants) or cash-for-work to reduce the loss of assets. FFW or CFW activities may have a side benefit of bringing about tree planting, land reclamation or the construction or repair of roads and infrastructure. Mitigation interventions differ conceptually from development projects in timing (punctual, prior to distress migration vs. anytime), duration (short-term, vs. long-term) and objective (impact on immediate emergency vs. sustaining the

resource base, improved household incomes or health status). Mitigation activities concentrate on keeping rural inhabitants in an operational mode with sufficient assets to work the following season. They enable households to maintain their situation at subsistence or near subsistence until circumstances improve. As such, mitigation activities overlap with and need to support on-going development activities.

Incorporating mitigation activities into Niger's Disaster Assistance portfolio is an innovative approach offered by the DPM. In accordance with the OFDA's Famine Mitigation Activity, the DPM project includes interventions that can be implemented quickly, at relatively low-cost and can be adapted to various situations with relatively high impact. The mitigation activities undertaken under DPM will be scrutinized and evaluated in accordance with meeting these four criteria.

Food insecurity has largely been seen as the inability to produce sufficient cereals to meet consumption requirements. Vulnerable groups have been defined as those whose deficits exceed a certain proportion of requirements (50-75% based on village deficit lists). Because of this link to production capacity, solutions and interventions have largely been conceived in production terms. However, as found during the perception study work and elsewhere, food problems are not just a problem of production. Making food available through food aid to distressed populations or through the production of more food (off-season crops) is not necessarily appropriate or desired by the "victim". The DPM project will take a flexible approach and offer creativity in seeking to match mitigation activities with lifestyles and desires of local populations. In doing so, two absolutes must be adhered to: (1) activities must be technically sound and (2) they must provide a net personal benefit to the recipient.

It is likely that in any one year, various types of mitigation activities will be implemented through arrondissement staffs and local PVO/NGOs that might include free food distribution to destitute villages, school-leavers, or PMI clinic participants, a seed credit scheme, feed distribution, strategic destocking, and food-for-work land reclamation activities or infrastructural development. The exact designation and/or mix of activities will depend upon the objective (targeting the most at-risk or infusing resources into a local economy) and the local situation: socio-cultural and economic milieu, beneficiary priorities, costs and technical requirements for implementation.

Flexibility and creativity are perhaps most called for apropos the various pastoralist populations. Several points follow:

1. Appropriateness of the activity. It will be crucial to know what forms of income generation are available and

acceptable to herders. Experience shows that trying to diversify herders into 'foreign' activities (e.g., gardening) has limited life. It will be better to help pastoralists pursue alternatives that are based on their lifestyle and are consistent with their socio-economic objectives in maintaining the family unit intact. Sustainable interventions such as the ecological management of rangelands are long-term activities not short-term mitigation interventions. An IFAD report argues to keep pastoralists in their zone, rather than diversify. Not only is traditional pastoralism a more environmentally sound means of livelihood but it is also the most preferred. It is recommended that pastoralists be assisted to better withstand drought within the context of their economy.

2. Land/resource tenure issues. Critical to famine mitigation and response activities with herders will be an understanding of rights to pastures and watering sites and the traditional patterns of movements that are well established and known.

3. Personal benefit. Considerable creativity and consideration will be needed to understand what pastoralists see as their personal benefits. A joint CARE/ILCA project in Ethiopia had considerable success with involving pastoralists in food-for-work initiatives to dig ponds, maintain wells, build cement-lined water tanks and learn hay-making and storage techniques for the future.

During the first years, the DPM project will inventory and pilot test possible mitigation interventions tailored to meet local and regional needs. Experience in Niger already suggests various options for working with pastoralists: supporting traditional migration strategies; stocking feed supplements in good years at local and regional levels; early harvesting of failed crops to feed as livestock supplement later in the drought; promoting timely herder destockage; initiating herder's saving schemes to preserve capital gained through animal sales; undertaking specific animal health programs and creating opportunities for earning alternative incomes.

Another group meriting particular attention are women in the identified vulnerable populations. As discussed earlier, women-headed households often are more at-risk as are widows and pregnant and lactating women. Again, whether food aid is the most desirable mitigation intervention is worth investigating. Various development projects have intervened on behalf of rural women in differing locales and among different ethnic groups with varying levels of success. Lessons can be extrapolated from these development initiatives to inform the selection of mitigation activities. One intervention worth looking at is the provision of small ruminants to women. Throughout Niger, women keep sheep and

goats as liquid savings, they manage their account to meet current and future needs, and they have traditional patterns of sharing/redistributing animals within their group. The exact form of the intervention varies but generally involves the supply of a goat or sheep to individual women who pass on the first offspring to another woman and so on. Of the various interventions tested by the PCAN UNICEF project (gardening, boutiques, cereal banks, mills), supplying small ruminants to women has had the widest application and success rate (Vaillot, pers comm). The Africare Goure project offers a similar testimony. Providing small ruminants to at-risk women in the form of free distribution or as payment for work may be an appropriate mitigation activity to complement other initiatives.

1. Participation in FFW/CFW Activities

Implementation of FFW/CFW activities and the issues involved are discussed elsewhere in this project document. The following section focuses on considerations related to participation in FFW/CFW programs, that is, who participates, who doesn't and why.

Motivation and incentives to participate in FFW or CFW activities are likely to be influenced by a variety of interacting variables. Several are highlighted below in abbreviated form:

Cultural norms. Given the historical pattern of social stratification in Niger, standards of what is and is not considered acceptable work are well-ingrained though vary from group to group. For example, Toubous do not work with donkeys. The noble classes disdain manual labor, and, in general, men do not carry things on their heads. Upper-class Zarma women may be culturally prohibited from digging in the ground while settled Bella living in same area do. Class and gender differentiated roles will determine who actually participates in which activities. Even when paid in food or cash, people discriminate about what activities they will undertake. In planning famine mitigation activities, it will be important to appreciate cultural norms and taboos. This is not to say that modes of behavior are stable and unchanging. Experience shows that in times of distress, people take on roles and tasks they otherwise would reject.

Class, caste and gender divisions likewise influence modes of interaction and communication patterns in terms of who works with whom, who listens to whom and who hears about an activity. Hierarchical patterns control access to specialized information. Examples are numerous: villagers refusing to listen to a lower-class well-digger resulting in a well being badly located; women not wanting to work alongside others of lower status; information not moving from men to women; access to resources including information resting within the chief's kin group.

Self-interest: Objective of project and consistency with participant priorities. FFW/CFW projects can be implemented to address food security, employment and/or infrastructural needs. Regardless of form, the objective of DPM FFW/CFW interventions will be to offer food or cash (or inputs such as feed supplements, small stock) to poor households that will enable them to refrain from liquidating their productive assets or to pursue degrading coping strategies. The extent to which these activities (including the type of work undertaken and the form of compensation) meet the interests and priorities of participants will influence who gets involved and sustainability of the effort. 'Make-work' projects may engage the more destitute members of a society depending upon the wage rate but lacking a development goal, there is minimal potential for long-term impact. Experience shows that if the FFW/CFW activity undertaken does not meet villagers interests, there is no continued maintenance. On the other hand, if the land reclamation activity, for example, is a priority because individuals do not have enough land, then people will be involved over time. The design team was impressed with a GTZ project site in the Filingue arrondissement where villagers, mainly women and girls, were digging *des ai*[4] during the Karim on a distant laterite plateau without FFW in order to gain access to productive land.

Pertinent to this discussion is the issue of natural resource management initiatives as famine mitigation activities on common land in Niger. A great deal of experience is being gained across Niger in this regard related to the reclamation of unproductive plateaus where several villages may claim rights to the land. One common lesson appears to be that all village land claims need to be clearly defined before project start-up. While this resolves potential conflict among villages, it does not clarify who within the village actually will use the reclaimed land. Of the projects visited (GTZ, Keita, and CARE/Galmi), future access to reclaimed land is accorded to those who do the work. The actual 'who' in terms of benefits is uncertain. Women tend to do the majority of the work but the reclaimed parcel is likely to be a 'family' field over which the wife has little control. Also, one can assume that not everyone in the village participates and thereby gains access to land. Who does not participate?..."the lazy" as reported in one village or, perhaps, families without labor to support additional dry season activities or 'outsiders/newcomers' who cannot lay claim to village land. Are such groups becoming increasingly marginalized? Are supplemental activities needed to purposefully target such groups in order to lessen potential socio-economic

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[4] Fairly small shallow holes (30-50 cm diameter and depth) to form pockets where millet or sorghum is planted. Earth which is removed is piled around the edge to form a small dike to hold water. Manure is placed in the hole to provide fertilizer and to stimulate termite invasion whose tunnels increase water infiltration.

inequalities? Brief interviews with several women working at a Project Keita site indicated that they had access to several parcels reclaimed on the plateau. Are project benefits accruing to a limited number of village residents? It is recommended that the DPM undertake a conclusive study related to these questions regarding land tenure and access on reclaimed common lands.

Targeting. An espoused advantage of using FFW/CFW as an implementation mechanism in famine mitigation is that it self-targets the most needy. This is accomplished through setting the wage level at market or submarket rates or using food as compensation that only the poor and women will work for. It should not be assumed, however, that such activities will necessarily reach the poorest of the poor as indicated above. In fact, experience indicates not. Research in Ethiopia found that a substantial portion of the participating households came from the upper income bracket. A Peace Corps volunteer living close to one of the Keita sites offered her observation that the participating women were from the upper-crust. Their incentive to participate was considered to be linked to the accorded status of being a project participant and to being on-line for future activities. It may be more realistic to assume that food-for-work activities will not reach everyone in a village unless particular methods are implemented. The IFPRI analysis of public works projects will shed light on this.

The NIGETIP model is biased towards able-bodied workers, possibly to the exclusion of more vulnerable individuals, including women. This is consistent with the project's purpose in contracting to complete a project on time and within costs. Again, the objective of the FFW/CFW activity bears directly on who is targeted for participation. A Caritas program in Niamey with the objective of distributing food aid to the needy - mainly widows with children, abandoned women and the elderly people - had to exclude able-bodied men as eligible since they were so many.

Women as a target group of FFW activities has received considerable attention and highlighted some concern, particularly in terms of the added burden FFW projects place on women. Because men are often absent on migration during the dry season, are engaged in more lucrative activities (commerce, cash cropping), or have other competing priorities, women are the major participants in FFW projects. Women see participation as a way to increase the family food supply in situations where they have few alternatives. The IFPRI analysis of Public Works Programs in Niger indicates that the principal reason for participation is to increase household consumption. While these projects add heavy labor to women's existing work loads, they also provide an important source of food and nutrition to the household. In many cases, several women from the same household join the activity and share domestic tasks while rotating work on the project. While it is certain that FFW provides an important food supply that reaches families through the

mother, the social costs of women's participation need to be weighed in terms of its impact on child care, health and the opportunity costs to women's time. To participate in FFW projects often means that regular work must be accomplished through burden-shifting or burden-sharing. A point worth considering is whether women are expending more calories on project activities than they are receiving in the food wage.

A distinction can be made between immediate benefits of limited duration and long-term benefits. Women may receive an immediate benefit in the form of the food wage for participation in natural resource management or water harvesting activities. However, the longer-term benefit in terms of increased land productivity may not accrue to women since access to the improved land may be restricted by cultural patterns and land tenure rights. In this regard, a potential problem has been noted where women provide the labor and learn the techniques of land reclamation but are not interested in maintaining structures or ensuring continued productivity of the recuperated land in the absence of any benefit. Sustainability becomes the question.

The wage in FFW/CFW activities elicits the self-targeting mechanism. Whether to use food, cash or a combination of the two must be made on a project-by-project basis. While FFW is more administratively burdensome, it is more consistent with a food production objective and likely to better self-target women and the needy. In large quantities, however, it has the potential of depressing local food prices and thereby creating disincentives to local production. Carruci of the Keita Project is adamant about the preference for FFW given its compatibility with production and food objectives -- minimal disruption will occur when the project stops as increases in household grain production brought about by the project takes over. The appropriateness of CFW will depend upon access to and robustness of the market to buy food. The IFPRI analysis of Public Works Projects in Niger indicates that in general people prefer food over cash for work.

If the intent is to target women, or at least not to exclude women, food may be more culturally acceptable. Traditionally, people use food (meal) to pay for cooperative field labor. Also, food is within the woman's traditional domain. It is commonly assumed that women have more control over food than cash and that women prefer being paid in food which they can control. The degree to which these assumptions operate for Niger is unknown. Rural Nigerien women have independent incomes and manage small amounts of cash independently but it is unknown to what extent women would be allowed access to the cash-for-work program or would control the generated cash.

As indicated in the above, the distinction can be made between participant and beneficiary since they are not always the same.

Again, it will be best to consider class, caste, and other social divisions within the region:

* Direct beneficiary. FFW participants are part of the overall beneficiary group. For example, mothers who have malnourished children participate in a dry season gardening project and receive food supplements.

* Indirect beneficiary. The mitigation activity may benefit a group other than the participants. For example, landless laborers receive a food wage for digging trenches and recuperating land on the plateau that will provide land and conservation benefits to settled farmers.

* Generalized benefit. Road construction benefits all members of a community including those receiving FFW. Evidence shows, however, that lower income groups (the usual participants in FFW) will benefit less from completed structures than better-off sections of the community. For example, a renovated school may only serve those living nearby.

Timing of the Activity. When an activity is undertaken influences who participates. Most famine mitigation activities take place during the dry season as the time of greatest need and when people are not occupied with subsistence cropping.

For many areas of Niger, the dry season is also the season of labor migration and dry season cash crop cultivation. Women, children and the elderly are often the only people left in many villages of northern Tillaberi and Tahoua Departments. They are the ones available to participate in FFW/CFW activities. A case in point is a NIGETIP Project near Bouza which started late in the dry season and has been unable to fill its labor requirements for able-bodied men. Recruitment was being opened up to include women.

Considerable attention has been given to the dependency-creating effects and the nonsustainability of using paid labor (either in the form of food or cash). This is a problem currently being encountered by CARE and others in the realm of natural resource management and is leading these donors to reject FFW. After years of using FFW in the Tahoua Department to stimulate local participation in resource regeneration, villagers do not see project results as their own and show minimal long-term commitment to the activities. Due to such problems, the Anti-Erosion Project of GTZ is pulling back its regular supply of FFW and using it only as an incentive for participation at the end of the season in certain locales. Criteria are currently being set to determine which villages will receive food aid. This appears to be a conscious effort on the part of project staff to use food aid judiciously as a 'development' incentive and catalyst -- a different objective and process than is implied in famine

mitigation to relieve distressed situations. Nevertheless, the criteria being developed by GTZ will be of interest to DPM. As a point of comparison, the Keita Project philosophy is quite different: there is no expectation that people should or will work without payment even on land that they will one day control. Every activity is paid including guarding the reforested dunes and slopes from scavenging animals for two years after planting to ensure establishment of the plantations.

V End Note: Issues

Free aid distribution is fraught with problems as experience with food aid in Niger has exemplified. Often it is difficult to direct food aid to only those villages identified as being food deficit, let alone to those within the village who are in greatest need. Everyone seems to have the right to free aid, regardless of need or status. Many villagers perceive that food aid distributions will continue to be problematic unless 'foreigners' direct and supervise the distribution.

How can DPM deal with the inherent problems of directing assistance to those who really need it? FFW/CFW provides an alternative with its self-targeting potential. Also, working for cash or in-kind payment is consistent with cultural norms across Niger. Implementing staffs, however, will need to pay attention to who qualifies, who participates and who benefits. A variety of famine mitigation activities have been discussed elsewhere in this document. The selection of an appropriate activity and method of implementation, whether it be free distribution, FFW, CFW, self-help or subsidized assistance will depend upon the nature of the crisis/stage of the food crisis being experienced by households; the socio-cultural milieu; local economy and physical environment.

Certainly, in some situations 'free' distribution will be necessary and appropriate (whether it be a distribution of food, feed or agricultural packs). Involvement of representatives from the various strata or groups in the community/population may help to ensure equity in distribution and that the assistance reaches those most in need. Perhaps, the point is not to be so concerned with targeting only the poor as ensuring that the poor and disenfranchised also receive their share including those who will become destitute if their conditions do not improve.

It cannot be assumed that villages or rural societies are homogenous or that they work to the benefit of the larger group. Community participation will be critical in early warning, setting priorities for and managing the response activity. The GTZ Tillaberi Project and others focus on local control. Work groups organize themselves by quartier and select a member as manager. The village handles all food aid distribution. Within the context of DPM, possibilities exist for using village monitors and herders

themselves in monitoring food security. Effort, however, will be needed to ensure that the chronically marginalized are represented in community-based activities.

Of concern to the DPM program will be the definition of what constitutes an emergency that warrants project intervention. Defining a disaster as *a situation when people can no longer cope* requires further clarification and precision related to the various agro-ecological, economic and social environments found in Niger. Strategies and ability to cope vary greatly. Further work is needed to determine what is 'normal' in these various situations and what constitutes a deteriorating situation of no return. It will be important to allow positive indigenous coping strategies to continue, not to usurp or erode them, nor to build dependencies upon uncertain external assistance.

PARTICIPATION IN FAMINE MITIGATION ACTIVITIES

Types of intervention	Participation/Benefits Targeted/Nontargeted	Method of Implementation FFW	CFW	Free	Subsidy	Self-Help
Infrastructural development						
wells						
dams/ponds						
road construction (new or improved)						
firebreaks						
Services						
expand nutrition centers						
health clinics						
schools						
sanitation facilities						
disaster credit (to purchase grain,seed, stock)						
marketing/price support						
Crop Interventions						
seed banks/seed savings and loans						
input provision/ag packs						
pest management activities						
seed/grain storage						
local market support						
gardening inputs/support						
Livestock						
native plant nurseries						
intercrop forages into windbreaks, etc.						
feed provisions						
fodder/feed storage						
strategic destocking						
herder's savings schemes						
water resources						
animal health provisions						
Natural Resource Management						
afforestation						
soil conservation						
water conservation techniques						
watershed management						
land reclamation						
Alternative income generation						

ANNEX I

INSTITUTIONAL ANALYSIS

I. Niger National Information and Early Warning System (SAP)

A. Origins

The first GON effort in early warning followed the drought crises of 1968/69 and 1972/73 with the establishment of a national level committee for monitoring the agropastoral season. The committee's mandate was to provide better information to decision makers in the event of a future crisis. The committee dissolved after 1977, largely because of a series of acceptable agricultural seasons.

The drought and famine of 1984/85, however, reinforced GON recognition of the need for a permanent system. An interministerial committee was formed in 1985 to monitor food security and to devise a permanent structure for detecting and preventing food crises. Efforts to do so did not get off the ground until 1987 when the committee completed a project proposal for a national early warning system (Système d'Alerte Précoce, SAP). In 1988, FAO and UNDP sponsored a joint mission to study the SAP proposal; CILSS/DIAPER and USAID/FEWS were engaged in discussion. In 1989, SAP was created as a permanent government structure attached directly to the Prime Minister's Cabinet.

A more detailed listing of events leading to the creation of SAP is outlined below:

- July 1987. A Ministry of Plan document entitled, "Proposition pour la Mise en Place d'un Système d'Alerte Précoce," is distributed to all ministers by the Prime Minister's Cabinet. It recommends the creation of a national early warning system under the rationale that successful implementation of the GON 1987-91 Five-Year Plan depends upon the country's ability to respond to food crises. At this point, the system is envisioned at the Prime Minister's level with participation from existing structures at the national and subnational levels. Short term objectives are to reinforce collection, transmission, and processing of agro-climatological data (quantitative). Medium term objectives are to extend the system to socio-economic and health indicators (including qualitative data).

- September 1987. A joint FAO/CILSS workshop "Atelier sur le Renforcement des Systèmes Nationaux d'Alerte Rapide et d'Information sur l'Alimentation dans les pays du CILSS" takes place from September 28 to October 1, 1987. Conclusions and recommendations focus on the need for national and regional SAP structures, with a coordinating technical unit attached directly to a political level where decisions can be made quickly. Emphasis is placed on agropastoral production estimates, cereals balance, and identification of at-risk populations.

- November 2, 1987. Legal text (arreté no. 12/PM) is signed creating a food aid coordinating committee, called Comité Technique de Suivi et de Coordination de l'Aide Alimentaire.

- November 1987. An expanded version of the July 1987 Ministry of Plan document, including budget and calendar, is completed by the Ministries of Plan, Agriculture, Environment, Livestock, Hydrology, Interior, Health, and Transportation. It is presented to donors, including FAO, WB, and FAC. Entitled "Projet de Création et de Mise en Place d'un SAP," it identifies priority parameters and indicators (agroclimatic data, agropastoral monitoring, national cereal stocks) and discusses the strengths and weaknesses of existing national structures.

- January 1988. The project document is submitted to major donors for funding.

- March 1988. Emphasis is placed on the importance of a national SAP during the round table rural development workshop, Processus de la Table Ronde du Niger, held from March 24-26, 1988.

- April 1988. An FAO/UNDP mission is sent to Niger to study the project document. Responsibility for handling the project document is moved from the Ministry of Agriculture to the Bureau for Administrative Reorganization (Bureau d'Organisation et Methodes, BOM) in the Prime Minister's Cabinet.

- May 6, 1988. The BOM completes a document detailing a revised SAP structure.

- June 10, 1988. The BOM document is adopted by an interministerial committee chaired by the Director of the Prime Minister's Cabinet.

- September 1988. Technical assistance from CILSS under the DIAPER Project, and from USAID under the FEWS Project, is made available for informal coordination of the nascent SAP structure.

- November 16, 1988. A multidisciplinary team is designated at the BOM to follow the SAP dossier.

- February 1989. A UNDP mission is sent to Niger to revise the project document.

- June 1989. Legal text is drafted by the Prime Minister's Cabinet creating a Comite de Pilotage for the establishment of the SAP.

- August 23, 1989. Legal text (arreté no. 89-003/PM) is signed creating the National Committee for Early Warning (Comité National du Système d'Alerte Précoce, CNSAP).

- August 24, 1989. A Permanent Secretary for the CNSAP is

appointed.

- November 1989. An FAO mission is sent to Niger to finalize and submit the project document for approval and funding.

- Late 1989. Informal negotiations take place between USAID and the Permanent Secretary on FEWS technical assistance.

- Early 1990. The project document is signed by GON, FAO, and UNDP.

- February 1990. Prefectoral decrees are signed creating departmental early warning committees (Comités Régionaux pour le Suivi de la Situation Alimentaire, CRSSA).

- March 1990. A Limited Scope Grant Agreement (LSGA) is signed between USAID and the GON providing FEWS support to SAP.

- May 1990. A FEWS donated computer system is installed at the Permanent Secretariat.

- July 26, 1990. Legal text (arreté no. 010/PM) is signed creating sectoral work groups (Groupes de Travail Sectoriel, GTS) at the national level.

- August 1990. The first training seminar for national and regional SAP representatives is held to introduce the new institutional structure (funded in part through the FEWS LSGA).

- November 1990. FAO technical assistant to the Permanent Secretariat arrives.

- February 1991. A joint SAP, FEWS, FAO field trip is undertaken to every department capital to introduce vulnerability assessment concepts to the CRSSAs.

- April 1991. Subprefectoral texts for the creation of arrondissement level committees (Comités Sous-Régionaux du Suivi de la Situation Alimentaire, CSRSSA) are drafted.

- May 1991. The second training seminar for national and regional SAP representatives is held to define the various participants' responsibilities (jointly funded by FAO/UNDP, CILSS/DIAPER, and the FEWS LSGA).

- August 1991. Field trips to each arrondissement in the country are undertaken to outline responsibilities of the CSRSSAs.

- September 1991. The third training seminar for national and regional SAP representatives is held to identify health and nutrition parameters essential to SAP (jointly funded by FAO/UNDP, CILSS/DIAPER, and the FEWS LSGA).

It is important to underline the Nigerien nature of SAP. The idea for a national SAP was certainly nurtured by donors, but the conceptualization of the system is entirely Nigerien, and the structure itself was initially conceptualized by Nigerien line ministry technicians responding to the agricultural development strategy outlined in the 1987-1991 Five-Year Plan.

The FAO/UNDP involvement came after the drafting of the initial project proposal by Nigerien line ministry technicians in July 1987. The FAO influence served to simplify the proposed organizational structure. CILSS exerted peripheral influence through its DIAPER representative beginning in September 1988, but only with regards to primary data collection activities already underway.

USAID involvement began when the SAP project document was moved from the line ministries to the Prime Ministry. USAID's interest was in maintaining the system at a high political level and ensuring the system operated in coordination with the FEWS project. USAID had further input during the November 1989 FAO mission. At this time, the FEWS Project representative worked in consultation with the FAO consultant and the Permanent Secretary on the final project document submitted to UNDP for funding.

B. Mandate and Activities since Inception

According to legal text (arreté no. 89-003/PM), the SAP is to detect and predict crisis situations in the agricultural, socioeconomic, health, and nutritional sectors. It is also to determine action necessary to prevent and/or mitigate such crisis situations.

The focus thus far, both for the GON and donors, has been on developing the monitoring rather than response aspect of the SAP system. Legal texts subsequent to the initial decree have all been focused on the early warning (EW) aspects of the system, both with regards to structure and methodology. As a result, indicators have been identified and a monitoring system put into place.

Effectiveness of data collection and transmission is irregular, however, depending upon the sector and the funding status of activities within sectors. The capacity to predict crises is therefore weak. The biggest problems are untimely data of variable quality and absence of defined, accepted qualitative monitoring methods. The quality of primary data collection is not an issue which DPM can address.

With regards to the prevention and/or mitigation of crisis situations, activities have been limited to food aid. There is currently no provision for interventions in other disaster situations. SAP has already identified the need for assistance in the response domain, including the creation of structures as necessary. To that end, the Permanent Secretariat has requested

assistance from UNDRO and UNITAR to conduct a study and propose a strategy for disaster prevention and emergency response. If such a study is carried out, it will provide useful information for further development of the DPM Program.

C. Structure

The SAP consists of hierarchical but interdependent components from the Prime Minister's (PM) level to the line ministry level and to the regional (department or prefecture) and sub-regional (arrondissement or sub-prefecture) levels. The various components have been, and continue to be, officially created on an ongoing basis.

The national committee, CNSAP, including the executive unit, the Permanent Secretariat, was created in August 1989. Department level committees, CRSSA, were created between February and March 1990. The six Sectoral Work Groups, GTS, including the Interministerial Work Group, GTI, were created in July 1990. Arrondissement level committees, CSRSSA, were created in approximately half of the sub-prefectures between April and May 1991. Legal documents are currently under preparation for the creation of the remaining arrondissement level committees.

Although the SAP has been long in the making, it is the only official national early warning system (EWS) in the Sahel. Its strength lies in its location in the Prime Minister's Cabinet and in its use of civil servants and existing government structures. There is a commitment to the system although it lacks dynamism.

Its major weakness is the financial incapacity at all levels of the SAP structure to carry out its mandate. Recent problems include short institutional memory due to the loss of key players in the sectoral workgroups and the departmental committees.

1. CNSAP - The National Committee for Early Warning

The CNSAP is made up of a president, the Director of the Prime Minister's Cabinet; a vice-president, the Secretary General (SG) of the Ministry of Agriculture and Livestock; and members including the SGs of all other ministries and the SAP Permanent Secretary. The CNSAP is the decision making body of the SAP. The committee is mandated to meet once a quarter and as needed during a crisis. Since inception, however, it has only convened once. This is due in part to the difficulty of calling together such high level officials and in part to undefined procedures. The result has been that decisions have been made by the Director of the Cabinet in consultation with the Permanent Secretary.

The shaky ground of decision making and unclear lines of communication and authority for the assessment and declaration of crises need to be addressed. This should result in clearer roles

for the various members of CNSAP and facilitate the accomplishment of their mandates.

2. Permanent Secretariat

The Permanent Secretariat (Secretariat Permanent) is made up of a Permanent Secretary, an Agricultural Economist, a Range and Livestock Specialist, a Computer Systems Manager, and a Financial Manager. The position for the range and livestock specialist, and a future position for a nutritionist, were not originally planned but found necessary to assure better coordination of monitoring activities in the livestock and health sectors.

The Permanent Secretariat acts as the executive unit of the SAP and is attached directly to the Prime Minister's Cabinet. Its primary responsibility is to coordinate the national structures involved in the system. The Permanent Secretariat was initially charged with monitoring food security and later with monitoring the socioeconomic, health, and nutritional situation of the country. In addition, it is expected to predict, detect, and prevent crisis situations. It has the authority to create the necessary structures to do so.

Although it is not a primary data gathering organization, the Permanent Secretariat is responsible for establishing key indicators, developing a databank of relevant information from primary data collection sources (survey activities carried out by members of the sectoral workgroups), and publishing regular bulletins synthesizing the national and regional food security situation. In addition, the Permanent Secretariat is responsible for standardizing procedures and methodologies for data collection, processing, and reporting, as well as soliciting donor and other support as necessary to assure the functioning of each sectoral work group.

Early warning activities by the Permanent Secretariat currently focus on the national level cereals balance exercise and the arrondissement level village deficit list. The November cereals balance exercise serves as the basis for a preliminary food assistance request to donors in November/December; and the village deficit lists (completed by the end of the year) serve as the primary targeting mechanism for potential food aid distributions.

The national and regional level cereals balance is based on information generated by line ministry data collection activities. At the arrondissement and department levels, the analysis is limited to millet and sorghum production and makes no allowance for trade or stocks. On the national level, official stocks and imports are added to production to get total cereal supply.

On the consumption side of the ledger, human cereal needs are determined by applying two different consumption rates to popula-

tion subgroups: rural sedentary, rural nomad, and urban. The consumption rates used, in kilograms of cereal per person per year, are 250 for rural sedentary and 200 for rural nomad and urban groups. On the national level, OPVN security stock replenishment is added to human cereal needs to determine total cereal needs. The cereals balance is then calculated as the difference between total cereal supply and total cereal needs, and expressed in terms of metric ton surplus or deficit.

The cereals balance method conforms to CILSS standards and is comparable to those across CILSS member states. Although the data used vary greatly in quality, and may even shed doubt on the utility of the exercise, there has been a steadily increasing effort by the GON to improve the integrity of the data used.

For the last three years the SAP has compiled information to support GON food aid requests to international donors. Tonnages requested are based on lists of deficit villages provided by the departmental early warning committees, who usually rely on arrondissement level officials for the task.

The SAP considers at-risk populations to be those in villages listed as more than 75 percent deficit in rainfed millet and sorghum production. Needy populations are determined by multiplying the percent deficit by the number of people in the village. Emergency food needs are then calculated by applying GON consumption rates for 3 months to the sum of needy populations in the arrondissement.

Problems with this method are numerous. There is no consistent methodology for determining village deficit levels. Relative deficit is, therefore, impossible to determine. Information on purchasing power or other access to cereals is overlooked. Relative vulnerability to the cereals deficit is, therefore, overlooked.

There are, apparently, as many methods for determining deficit levels as there are Ministry of Agriculture field agents. In some departments cereal supplies are estimated based on projected yields of sample plots times the estimated area under cultivation. Since only a very small, unrepresentative number of villages are sampled per arrondissement, extrapolation for the whole arrondissement may not reflect probable production variations. In other areas, local production figures are estimated through interviews with villagers.

Still another method is a random sample of villagers from villages reported as deficit (either because of recognized rainfall shortages or by hearsay) are interviewed by an agriculture agent in quantitative detail about their cereal production. From these responses the agent makes judgements on how many individuals in the sample have deficit production. This number is then divided by the total number of people in the village in question, and the percent

recorded on the departmental list as the percent deficit for that village.

The Permanent Secretariat staff is well aware of the problems with the procedures for quantifying village deficits and identifying populations at risk. In fact, one of the conclusions following the second SAP training seminar was that neither the national cereals balance exercise nor the arrondissement village deficit lists are indicative of populations or areas most vulnerable to food insecurity.

Future workshops on determining village deficits and population vulnerability are likely to be funded by the FAO/UNDP project. Under DPM the development of arrondissement-specific vulnerability assessment methods would complement the national level improvements being initiated through the FAO project.

The Permanent Secretariat has been slow getting started: a Permanent Secretary was appointed in August of 1989, but additional staff and operating procedures were not outlined until one year later (arrete no. 010/PM of July 26, 1990). The FAO/UNDP project, as the primary institutional support, did not come on line until November 1990. The biggest weakness, which has affected all activities, has been the lack of clearly defined operating procedures. It is important to note that the poor harvests and subsequent food aid distributions of 1990 and 1991 pre-empted important institutional development at the birth of the system.

In addition, personnel, financial, and technical resources available to the Permanent Secretariat have been insufficient to fulfill its mandate, especially with regards to indicator identification, databank development, and bulletin publication. As with other actors in the early warning community, indicator and databank development is incomplete. Progress has been made, however, in educating the different SAP players on early warning indicators, in general. At this point, a focussed consultancy to simplify and prioritize national level indicators would be in order. This has, thus far, been an activity of the FAO/UNDP project. It is intended that DPM will decentralize this effort by focussing on the establishment of critical indicators based on local systems.

Preparation of a bimonthly bulletin on the food and health situation across the country consumes much staff time, and with questionable utility given that the bulletins are late and lack synthesis and recommendations. This is due, not only to weak capacity for analysis, but also, in large part, to the enormous amount of time required just to assemble the information. This would be less of a burden if the GTSs contributed on a more regular basis. In order to encourage better communication of data from the GTSs, the Permanent Secretariat plans to follow the progress of each workgroup.

Finally, with respect to the bulletins, it must not be overlooked that there is a political reticence on the part of Permanent Secretariat staff to project food security scenarios and make recommendations because of their political significance. It is much less controversial to publish a descriptive rather than analytical bulletin.

3. GTS - Sectoral Work Groups

The GTS, covering different aspects of food security, were created one year after SAP to synthesize relevant primary data collected by the different technical services. The chairs of each group form a consultative body called the Interministerial Work Group (GTI) which assists the Permanent Secretariat in synthesizing the information submitted from the work groups. There has been very little activity from the GTI to date. Its members could not be designated before appointment of the GTS chairmen, and even with members, there is no scope of work. There has been recent activity, however, with the new practice of meeting before the publication of every bulletin, approximately every 2 months.

The GTSs have also been slow getting started. In general, establishment of the national level SAP components took back seat to the regional level components which were created in time to handle the consequences of the poor 1990/91 agricultural season. The composition and objectives of the respective GTSs were to be established by legal texts from each of the ministries housing a workgroup chair. These texts were drafted in late 1990 and early 1991 but not all have been signed due to changes in government and reorganization of ministries.

Despite sluggish activity, there has been an unanticipated benefit to the creation of SAP and the subsequent establishment of sectoral workgroups: an additional user of the primary data generated by the ministerial statistics services has been born. There have been unofficial reports that results from some of the traditional survey activities have become more timely and of higher quality, due in part to pressure from SAP users.

a. Agricultural Growing Season Working Group

This is the only work group that existed before the creation of SAP. It was formed as part of a regional AGRHYMET initiative on August 7, 1986 (arreté no. 44/MCI/T creating a Groupe de Travail Pluridisciplinaire, GTP). It is chaired by the National Meteorological Service (METEO) in the Ministry of Transport and Tourism. Its members include the Directorate of Agriculture (Direction de l'Agriculture, DA), the Directorate of Livestock and Animal Industry (Direction de l'Elevage et de l'Industrie Animale, DEIA) and the Directorate of Crop Protection (Direction de la Protection des Vegetaux, DPV), all within the Ministry of Agriculture and Livestock; the Directorate of Water Resources (Direction

des Resources en Eaux, DRE) within the Ministry of Hydrology and Environment; the National Irrigation Office (Office Nationale des Amenagements Hydro-agricole, ONAHA); the Directorate of Territorial Administration (Direction de l'Administration Territoriale, DAT) and the Gendarmerie Nationale, both within the Ministry of Interior; and finally, the INRAN and AGRHYMET Center.

The GTP is tasked with publishing agro-meteorological bulletins every 10 days (dekad) during the growing season. This activity is funded in part by CILSS/DIAPER. For the past few years, publication and diffusion of the bulletins have been irregular due to insufficient personnel, irregular funding, and data collection problems.

Indicators identified for SAP purposes are rainfall, water balance, river levels, crop status, pasture conditions, and pasture balance. All of these indicators except water balance are incorporated in the SAP bulletin. Rainfall is provided by METEO on a regular basis for a subset of stations which have radio communication with Niamey. Data from the rest of the stations is irregular and slow. This presents a problem as rainfall is one of the earliest and perhaps most accurate indicators for Niger.

River level data, provided by DRE, is reliable, accurate, and timely. Data on crop and pasture conditions is irregular, due largely to field personnel problems. It is hoped that DPM can address this problem through its focus on critical indicators and development of arrondissement level capability to collect early warning information.

Pasture balance is provided by the USAID supported Integrated Livestock Project. The production part of the equation is estimated from satellite greenness (NDVI) data calibrated by ground measures from sample sites. The method is reliable at the departmental level, only. Arrondissement level distinctions are currently masked. Discussions with ministry technicians reveal that this data can be broken down to the arrondissement level. It is recommended that this be pursued under DPM. The consumption part of the equation consists of projecting herd size. This is the weak part of the system as there has not been a livestock census since the 1984 drought. However, plans to conduct a new livestock census are underway through the UNDP funded PADEM project.

b. Agricultural and Livestock Pest Monitoring

The draft legal text of this group has never been signed. The Directorate of Livestock and Animal Industry is the designated chair, with members from the Directorate of Crop Protection, the Directorate of Agriculture, and INRAN. Indicators identified for SAP purposes are 1) for crop pests: area infested, area treated, and percent loss for locusts and grasshoppers; area infested only for other major pests; and 2) for livestock pests: frequency of

major diseases and vaccination coverage by animal species. Only information on herd health is currently incorporated into the SAP bulletin. When it is, it is late, and without relevance to the rest of the information presented.

The agricultural pest monitoring aspect consists of GON/donor meetings held at the Ministry of Foreign Affairs every two weeks during the agricultural season and as necessary during crisis conditions. The Directorate of Crop Protection provides the situation reports, and FAO acts as secretary.

The Directorate of Crop Protection EW activities are funded entirely by donors: AELGA/USAID (radios, per diems for locust and grasshopper surveillance), SYSPEC/FAO/PNUD (pest attack forecasting), GTZ (crop loss assessment), ACDI (pesticides, training and TA for village brigades). Future funding from AELGA/USAID and GTZ is unclear. Even with donor funding and technical assistance, there are major personnel and funding constraints at the DCP. The field surveyors, in particular, are insufficiently supervised and financed.

The most useful information from this effort is the grasshopper and locust surveillance. Other pest data is suspect given field survey constraints. Despite the data problems and the fact that the information does not appear in the SAP bulletins, EW concerns are largely met with agricultural pest monitoring. Reduced donor funding, however, will seriously jeopardize monitoring activities.

The livestock pest monitoring aspect of this group relies upon information generated by the classic system of livestock reporting from each arrondissement. The biggest constraint to using this data is its extremely tardy arrival at the national level (never less than a two month lag due to compilation at the arrondissement level and aggregation at the departmental level before reaching the central level). The utility of the data is even questionable given the difficulties of knowing baseline herd size. Fortunately, given a high vaccination rate for major diseases, herd health is not a problem in Niger, and therefore, not a priority indicator.

c. Crop Production Forecast and Estimates of Crop Production and Stocks

At this writing, the draft legal text was under revision by members of the work group. The designated chair is the DA, with members including METEO, the Directorate of Statistics and National Accounts (Direction de la Statistique et des Comptes Nationaux, DSCN) within the Ministry of Finance and Planning; the Directorate of Population (Direction de la Population, DP) within the Ministry of Social Development, the Directorate of Research and Programming (Direction des Etudes et Programmes, DEP) as well as the DEIA within the Ministry of Agriculture and Livestock; the Directorate of Domestic Commerce (Direction du Commerce Interieur et des Prix,

DCIP) within the Ministry of Commerce, the National Cooperative Union (Union National des Cooperatives, UNC), ONAHA, and OPVN.

Indicators identified for SAP purposes are 1) cereal crop production: forecasted and estimated, including area cultivated and yield; 2) cereal stocks: on-farm, cooperative, commercial, parastatal, and donor; 3) population projections: rural, urban, sedentary, and nomad by arrondissement. These indicators are used to calculate the preliminary and ex-post national level cereals balance, which appear in the SAP bulletin.

The backbone of this group has always been CILSS/DIAPER technical and financial assistance to the SSA for the traditional crop production survey and the more recent on-farm stock survey. Cereal production is one of the most used indicators for food security in Niger; however, the data is highly suspect. Forecasts should begin in July, with an update in August (this exercise is usually accomplished by the SSA in conjunction with the GTP).

Preliminary crop production estimates should be available in September, with an update in December. Data collection does not occur systematically, however. Personnel and resource constraints, as well as a large sampling error, result in biased data that is not representative below the departmental level. Data is used down to the arrondissement level, however, and is the basis for determining levels of food insecurity.

Despite the fact that the integrity of agricultural production data is a serious concern for donors, DPM hopes to circumvent this problem through the establishment of critical indicators based on local production systems that will provide additional early warning information at the arrondissement level.

Population data are among the best in Niger. Projections are based on the 1988 census according to arrondissement specific growth rates. The data can also be disaggregated down to the village level.

Stock data are reliable but not representative below the departmental level. All but on-farm stock data are available on a monthly basis. The on-farm survey is carried out in September only, in order to provide closing stock estimates for the national cereals balance exercise. It has been suggested that the on-farm stock survey be carried out in March as well, in order to estimate lean season stock levels.

d. Cereals Market

The legal text for this work group, signed on March 5, 1991, designated OPVN as chair. Its members include the Directorate of Ground Transportation (Direction des Transports Terrestres, DTT) within the Ministry of Transport and Tourism, the Nigerien Council

of Public Transporters (Conseil Nigerien des Utilisateurs de Transport Publique, CNUT), the University Economics Department (Faculte des Sciences Economiques et Juridiques, FSEJ), the Customs Office, the Niamey Chambre de Commerce, as well as the DA, the DSCN, the DCIP, and ONAHA.

Indicators identified for SAP purposes are producer prices, consumer prices, border prices, internal flows, imports and exports, donor food aid pledges, and food aid distributions. The information most regularly used for the SAP bulletins is consumer prices for cereals and cowpea. Data on imports and food aid are not collected on a systematic basis but do appear in the SAP bulletin as available. No official data on exports exists.

Price data, as well as information on internal flows is furnished by the Cereal Market Information System (Système d'Information sur les Marchés Céréaliers (SIM-C), a GTZ funded project in OPVN publishing bimonthly bulletins of cereal and cowpea prices from 48 markets. The data are useful and relatively accurate but dissemination is slow (sometimes as much as a two month lag) due to insufficient personnel at the central level for data processing. A partial solution to this problem would be to allow CRSSA and CSRSSA access to the data before it is forwarded to the central level.

e. Livestock Market

The draft legal text for this work group has not yet been signed. The DEIA is to be designated chair, with members including the DSCN, the DCIP, and the DA.

Indicators identified for SAP purposes are market availability, market sales, livestock prices, and meat prices. Despite the fact that legal text has not been signed for this group, information on livestock prices and availability appears regularly in the SAP bulletin. This information is generated by the Livestock Price Information System (Système d'Information sur les Marchés à Bétail, SIM-B) initiated by USAID and partially funded by CILSS/DIAPER.

SIM-B publishes monthly bulletins on 42 markets and weekly status sheets on 11 principal markets. The monthly bulletins provide useful analysis but are very tardy (usually a two month lag), due largely to data transmission problems from regional to national level (data processing and analysis are decentralized) and insufficient personnel at the national level to compile the bulletin. The weekly status sheets, however, are useful, real-time data. Data quality is, in general, good, but future integrity is jeopardized by irregular supervision and follow-up training of field surveyors and lack of systematic recalibration of market scales.

As proposed for SIM-C, CRSSA and CSRSSA access to the livestock

data before it is forwarded to the central level would solve the timeliness issue for regional and subregional needs. In addition, data quality could perhaps be assured in the arrondissements chosen for DPM intervention through inputs to supplement supervision and training.

f. Food, Health and Nutrition Monitoring

Members for this group were designated by recently signed legal text (arreté no. 19/MSP of Feburary 18, 1992), but a workplan including precision of indicators, has yet to be adopted. The Directorate of Maternal and Child Health (Direction de la Sante Maternelle et Infantile, DSMI) within the Ministry of Public Health serves as chair. Members include the DEP of the Ministry of Public Health; the DEP and the DP of the Ministry of Social Development, the Directorate of Economic Analysis and Forecasting (Direction des Analyses Economiques et Previsions, DAEP) of the Ministry of Finance and Planning, the University Health Sciences Department (Faculte des Sciences Sanitaire), as well as the DAT, the DA, UNICEF, and WHO.

Parameters for SAP purposes are under discussion: household revenue, frequency of meals, food substitution, percent households without cereal stocks, incidence of epidemic diseases, rate of health center visitation, and malnutrition rates. Thus far, only information on epidemics from the Systeme National d'Information Sanitaire (SNIS) has appeared in the SAP bulletin.

SNIS is located in the DEP of the Ministry of Public Health with technical assistance provided by USAID/Tulane University. It is a centralized system with quarterly reporting from 38 centers across the country. Constraints to the use of this data include extremely slow reporting from the field and lack of systematic diffusion of the compiled results.

The Permanent Secretariat is encouraging this workgroup to develop proxy indicators for the parameters listed above. These indicators will be considered for rapid rural surveys (under development by the Permanent Secretariat staff) performed by the CSRSSAs in at-risk zones. It is recommended that DPM collaborate with this workgroup during development of locale specific indicators.

4. CRSSA - Departmental Committees

The CRSSAs were created by legal text in July 1990 (arreté no. 010/PM). The actual composition and objectives for each group were established by separate prefectoral texts in February and March of 1991. The chair in 4 departments is held by the Assistant Secretary General. It is held by the Prefect in 2 departments, the Departmental Director of Agriculture in 1 department, and a Permanent Secretary appointed by the Prefect in 1 department. Members include the directors of all the technical services

involved in collecting data on the indicators monitored by the national level workgroups.

For the most part, the prefectoral texts outline the following responsibilities for the CRSSAs: identification of zones deficit in cereal production, determination of populations at-risk, estimation of food aid requirements, and establishment of food aid distribution mechanisms. Despite a lack of methodology, material, funding, and animation, CRSSAs were operational because of severe food deficits in 1991.

Activities thus far have been the identification of deficit villages by all departments, and determination of emergency food requests, development of food distribution plans, and monitoring of food distributions in Tillabery, Tahoua, Zinder, and Diffa Departments. Greatest success was met by the Tahoua and Zinder committees, both of which are chaired by dynamic members. The chair of the Tahoua CRSSA was a key central level SAP player before being assigned to Tahoua, and the chair of the Zinder CRSSA was appointed Permanent Secretary, by the Prefect. He is a civil servant appointed on a fulltime basis and with a clear directive.

Sluggish activity on the part of the other CRSSAs stems largely from high turnover of committee members. Many of the CRSSA representatives at the SAP training workshops, for example, have been replaced by civil servants with little understanding of early warning and disaster response. An associated issue is that only departmental directors are designated members. Assistant directors should also be involved so that CRSSA activities can run smoothly in the absence of the director level members. These issues will be addressed through the DPM arrondissement level training component, and the condition precedent that GON personnel trained under the program will remain in positions relevant to their training for at least six months.

The biggest problem associated with activities undertaken thus far is the lack of a consistent methodology for identifying "deficit villages" and "populations at-risk." In general, village chiefs are responsible for declaring a deficit which is verified by an arrondissement agricultural agent. Populations in villages having a millet and sorghum deficit of 70 percent or greater are considered to be at-risk. There is no defined methodology for verification or estimation of a deficit on the village level. There are no other criteria, such as purchasing power, considered in the tally of at-risk populations. Relative vulnerability of these populations is, therefore, impossible to determine. The Permanent Secretariat hopes to resolve this problem through a series of training seminars, at least one of which will be carried out by FAO. As mentioned above, the DPM intention to develop arrondissement-specific vulnerability assessment methods will complement the national and departmental level efforts underway.

5. Arrondissement Committees - CSRSSA

The CSRSSAs were not originally part of the SAP structure. The Permanent Secretariat recognized early on, however, that arrondissement level committees, perhaps even more so than departmental level committees, are necessary for the identification and monitoring of vulnerable populations. The drafting of sub-prefectoral texts began in August 1991. Approximately half of the arrondissements have drafted legal texts, but only a few have been signed. These committees are organized much as those at the departmental level. Their major responsibility is the socioeconomic monitoring of cereal deficit areas and the management of local level interventions. These committees will be one of the major foci of intervention for the DPM Program.

D. Donor Participation

1. FAO/UNDP

Since November 1990, the FAO, under the umbrella of its Global Information and Early Warning System (GIEWS), has been providing support for institutional development of the SAP. Funded by UNDP, the FAO assistance totals up to one million dollars for a two year period ending November 1992. Negotiations are currently underway for a one to two year extension.

Technical assistance consists of one chief of party and one agricultural statistician, both on a fulltime basis, and occasional shortterm consultants for indicator and databank development. Other personnel include a chauffeur and secretary. Vehicles, computers, and office equipment also have been purchased for the Permanent Secretariat.

The major contribution of the FAO project has been the development of the institutional framework, i.e. assuring the appropriate legal work behind the national, regional, and subregional work groups and committees, as well as educating the participants about their roles. Technically, progress has been made in establishing, monitoring, and reporting on national level indicators. The FAO approach has been criticized as top down, with most of the resources concentrated at the national level. Indicators, for example, have been established from a national perspective. Reporting, through the bimonthly bulletins, does not address regional or subregional needs. Future support, if approved, will focus on the national level workgroups and the regional committees (CRSSA).

DPM strategy is just the opposite, with support focussing on the arrondissement level for indicator development, monitoring, and reporting. Training and technical assistance will be directed to the CSRSSAs for development of both an early warning and a disaster response capability.

It is important to note that the FAO and DPM approaches are not conflicting but complementary. FAO's current effort has been appropriate for the Nigerien context. An institutional framework, even if not optimally functioning, has been created. Should future assistance from FAO/UNDP be withheld, the framework is sufficiently solid to support the DPM program.

2. CILSS/DIAPER

CILSS, through its DIAPER Project, has been providing indirect technical assistance (short and longer term consultants) to SAP. Since 1991, it has provided some financial support for SAP workshops and some office equipment for the Permanent Secretariat. Current project assistance came to an end in April 1992; the nature of follow-on assistance is not yet clear.

DIAPER's focus has always been primary data collection in the agropastoral and market sectors. It has provided technical and financial support for the cereal production survey and on-farm stock survey at the SSE. In collaboration with other donors it has also provided support for rainfall reporting at the meteorological service, for cross border trade surveys at OPVN, and for cattle market surveys at the livestock statistics service.

DIAPER's major contribution has been the establishment of a coherent national cereals balance exercise. As mentioned above, SAP now employs the same cereals balance method as other CILSS member states. Through DIAPER efforts, the quality of the data used in the exercise is improving.

Should future financial support be cut, there will be serious repercussions for the cereal production and cattle market surveys. The Ministry of Agriculture and Elevage cannot currently sustain these primary data collection activities alone.

Problems within the traditional primary data collection systems are beyond the intention of the present project. Breakdown in these already weak systems will compromise the SAP's current means to assess vulnerability of Nigerien populations. DPM proposes to look beyond these traditional systems, so, despite the perceived handicap of poor production estimates, the ability to identify vulnerable populations will be strengthened.

3. USAID/FEWS

Since early 1990, USAID support to the SAP has consisted of technical assistance through the FEWS representative, donation of a computer system by the FEWS Project, and financial assistance through a Limited Scope Grant Agreement (LSGA). The LSGA consists of almost one million dollars of USAID/Niamey funds allocated to SAP activities through a buy-in to the FEWS Project. Activities thus far have included field trips and training seminars, with a

focus on decentralized early warning and vulnerability assessments. Future support will include a fulltime technical advisor at the Permanent Secretariat to manage interventions aimed at increasing the capacity of the CSRSSAs to monitor food security.

The major contribution of USAID/FEWS has been to reorient SAP's dependence upon cereals balance as sole criteria for determining emergency food needs. Through workshops and field trips, FEWS vulnerability assessment techniques, which include an evaluation of socioeconomic access to food, have been advanced as a more thorough means of detecting at-risk populations and determining relative food needs. The annual FEWS assessment of vulnerable groups has been carried out in conjunction with Permanent Secretariat staff using SAP data since 1990. In practice, these techniques are not incorporated in a widespread or consistent way, but awareness has been increasing as to their importance at all levels of SAP.

E. Summary and Conclusions

1. SAP Status

Success in fulfilling the SAP mandate has been mixed at best. As described above, the focus thus far has been on developing the monitoring aspect of the SAP system. Although DPM's focus will be on the prevention and mitigation aspect of SAP's mandate, some of the constraints concerning the EW aspect will also be addressed.

To summarize, the major problems facing SAP are 1) untimely data of variable quality, 2) insufficient analytical applications, and 3) lack of clearly defined operating procedures. These problems have been aggravated by the uneven start-up of the various SAP components. From the beginning, crisis management has pre-empted important institutional development.

With regards to data problems, the major constraint is the inability of the GON to sustain current levels of primary data collection without major donor intervention. A partial solution to this problem would be the streamlining of data collection activities among ministries and administrative levels. There is currently much more data collected than is processed, much more data processed than is analyzed, and much more data analyzed than is used for decision making. Data collection needs should be reviewed with an eye for prioritizing EW indicators. This has, thus far, been an activity of the FAO/UNDP project (though with mixed results).

The national level primary data issue is not something that DPM can address. It is within the scope of DPM, however, to address the need for decentralized EW data. The development of coherent qualitative monitoring methods, especially the establishment of critical indicators based on local production systems, will complete the EW picture in a way that GON statistics services

cannot.

Insufficient analytical applications is due, not only to weak capacity for analysis, but also, in large part, to the enormous amount of time required to assemble information. Most of the GON data collection systems are centralized, with little to no data processing capability at lower levels. Surveyors at the field level usually have more data collection responsibilities than they can handle, and analysts at the national level have an overwhelming amount of data processing. The result is that by the time the information is ready for analysis, it is outdated.

The Permanent Secretariat staff, in order to have timely information for its bimonthly bulletin, often becomes involved in compiling and processing primary data with the GTS technicians, and therefore, rarely gets around to analysis. It is hoped that this problem will be alleviated with the signing of remaining legal text for the GTSs.

The lack of clearly defined operating procedures, which has affected all activities, has been one of the biggest constraints. This is also true for decision making procedures.

In conclusion, it is important to reiterate the Nigerien nature of SAP. It was initially conceptualized by Nigerien line ministry technicians responding to the agricultural development strategy outlined in the 1987-1991 Five Year Plan. Although the system is not yet fully operational, it has become a national institution. As such, it is the only official national early warning system in the Sahel. Its strength lies in its location in the Prime Minister's Cabinet and in its use of civil servants and existing government structures. Despite the problems cited above, there is a commitment to the system.

II. Niger's Disaster Response Structure

A. Response and Management

The GON's response to disasters has been ad hoc in nature, with the effectiveness of operations directly related to the frequency and geographical impact of the disaster: larger, or more frequent disasters are dealt with more efficiently than smaller or less frequent emergencies. The management of disaster and emergency response, including for fires, floods and severe accidents, takes place under the overall responsibility of the local Ministry of Interior representative (Prefect, Sous-prefect).

Operationally, responsibility for emergencies or disasters is allocated to the appropriate sectoral Ministry (e.g., epidemics to Health, grasshoppers to Agriculture). For disasters or emergences where the cause or impact do not relate to a specific Ministry

(e.g., flooding) or where there is no event-specific agency present (e.g., urban fires outside Niamey), initiating and directing the government response is usually undertaken directly by the senior Ministry of Interior person in the location.

Food shortages present a special case. They are managed under the authority of the Prefect or Sub-Prefect by a committee (the CRSSA at the department and the CSRSSA at the arrondissement level) established by decree to deal with food shortage early warning and response management. This system is relatively new and not uniformly implemented at the department and arrondissement levels.

The level of oversight, intensity of management and allocation of resources by the GON for disasters relates directly to the assumed magnitude and impact of a potential or actual disaster. Department and arrondissement authorities have been able to mobilize local resources in response to emergencies and local disasters (e.g., flooding), but this local assistance is usually reactive and not sustainable for large or long duration disasters (e.g., large scale food shortages).

The most common disaster management method used is "Command and Control," inherited from the post-1974 military government and political culture. Little attention has been paid to involving "victims" in the response process as other than labor, and little popular participation in preparedness and response efforts has been reported.

At the same time, "popular" contributions from economically well off people are a not uncommon means for dealing with limited impact disasters at the department and arrondissement levels. This technique has been used to secure aircraft fuel for pest control, vehicle fuel for disease control and general assistance for flood relief. While this assistance is collected and distributed in a "popular" manner, the spontaneous nature of the giving may be directly related to the attention given by the Prefect or Sub-Prefect and the local economic and tax situation, rather than to a grassroots outpouring of sympathy.

Disaster response if often reactive for two reasons. The first is the lack of resources at the national, regional and local level with which to respond. The lack of available resources means that most disaster response requirements are never met and other little direct government assistance is provided.

Even when food shortages are predicted through the SAP early warning system, there is often a two to eight month delay in the arrival of assistance. Distribution of the "delayed" assistance is based on conditions at the time the assistance is available (i.e., relief of immediate problems), rather than in anticipation of conditions developing (i.e., mitigation of potential problems).

The second reason, related to the first, involves the competing demands on government officials for action. Most government officials operate in a resource poor environment yet have wid ranging responsibilities and official obligations. The natural tendency, in Niger as elsewhere, is to deal with the most pressing problems and defer acting on all other situations for which solutions are difficult due to a lack of resources.

This situation is very relevant when one considers that 3 to 5 government personnel can be required full time for the effective management of a food aid operation in an arrondissement. In this case, "full time" means seven days a week. The personnel are also expected to complete their normal work during the same period, as there is no one else available to which their work can be transferred. As can be expected, there is frustration for the bureaucrats at having unaccomplishable tasks and for the donor at not having reports done on time (or at all).

B. Food Shortages and Mitigation Efforts

Since the 1974 coup d'etat by General Kountchi, there has been a governmental tradition and political will to deal with both the impacts and causes of disasters, particularly those threatening food security. A frequent quote of the deceased President was that no one would stave in Niger, and this was backed by clear government policy as far as the priority and management of food relief operations was concerned.

The involvement of the military, and particularly the current President, in food distribution efforts in 1974 and later years was legendary. Unfortunately, the bad management of the national cereal supply, as disclosed at the National Conference, has overshadowed the successes which the Kountchi, and to a lesser extent, Saibou government had in delivering emergency food assistance.

The Kountchi government went beyond the simple food relief focus in response to the 1984 drought. At the government's insistence widespread off-season gardening was begun, even in Niamey where water for gardens was free and all the park areas were turned into food gardens.

Although not a success in all areas, this experience dramatically expanded off-season gardening in the rural areas, modified eating habits by introducing new foods and established a new response to drought and food shortages. The impact of the off-season program was positive enough that this type of activity has become a set piece of any arrondissement or department drought/food shortage response plan.

The creation of mitigation activities such as off-season gardening by the government is important. These activities have been

internally developed, have a relatively high degree of acceptance and are seen as contributing to the development of the country while meeting current needs. On another level, there has been a policy objective since the 1970s that Niger should be self-sufficient in cereal production. The view that free food distributions work against this objective has been widely held. Thus, there is a view that free distributions should only be undertaken when no other means is available to assist populations threatened by food shortages.

Contrary to some current opinion, emergency food aid was seen as a necessary evil, rather than a preferred means of coping with recurrent but relatively minor problems. This preference against food aid, for policy and management burden reasons, provides a fertile base from which to develop more effective mitigation without the dependence on food aid alone.

C. Other Disaster Response

Niamey is currently the only city with a functioning fire and emergency medical system. Plans have been made to establish fire/emergency departments in other major cities through Civil Defense structure. Building fires are uncommon in Niger. Market fires are a problem and have resulted in locally important economic losses and dislocation. Outside of Niamey, fire response is unplanned and ad hoc. Aircraft crash trucks are stationed at airports in five cities but are of little use for any serious urban conflagration except in Arlit, where well equipped and trained plant safety personnel are employed by the mines.

Rural, or wild fires, particularly in pasture, has been both a problem and necessary for vegetation regeneration. Some efforts have been initiated to control wild fire when it is not beneficial through the use of tractor plowed fire breaks, but a more systematic approach is needed. Aerial surveillance has also been attempted, with limited success.

Acute medical problems, particularly road accidents, are seen as one of the more critical emergency problems. Emergency medicine and the training and use of volunteers has not made much progress in Niger. As with larger events, medical emergencies are dealt with through existing (resourceless) medical structures and on an ad hoc basis. At the same time, health personnel have gained considerable experience in vaccination and epidemic control operations and these have been mounted with little difficulty if adequate resources are available.

Floods are dealt with, as can be expected, in an ad hoc manner. Flooding and houses collapsing due to rain are problems caused by a combination of the locally heavy rainfall which is possible in Niger, land tenure and environmental degradation. Loss of life and much property damage is probably avoided by common sense in most

cases. Where life is really threatened and damage significant, mitigation measures are probably more structural, and costly, than methods for coping with other disasters in Niger.

Relief efforts are mounted with local government resources and, where possible, using food and shelter materials available locally through development projects. Management of the operations may be assumed by a Prefect or Sub-Prefect or delegated to a government official, but much of the relief and rehabilitation is accomplished by the victims before any external assistance is available.

D. Conclusions

Niger has had the political will to deal with the more pressing disasters of drought, food shortages and disease, but need always outstrips resources, leading to a catch-as-catch-can strategy for disaster management. The GON has also shown innovation in disaster response, particularly the off-season garden activities. Similar flexibility can probably be achieved in responding to all disasters if the ground work is done well and reasonable expectations for resources can be established.

The GON's efforts seem to have been very top-down, with little involvement of the needs or actions of the victims. This needs to change, particularly because the GON has inadequate resources and needs to capitalize on indigenous efforts. This will also partly avoid the provision of unneeded assistance or, emergency assistance for a problem which does not exist. This change melds well with the current movement toward democracy and is a more realistic approach to disaster assistance.

III Private and Nongovernmental Organizations in the Disaster Sector

A. International Organizations

International NGOs have been active in Niger since the early 1970s. Traditionally, NGOs have focused on development activities in health, forestry, agriculture, bio-diversity, small enterprise development, cooperatives, and rural credit. Only a few NGOs have a history of involvement in famine and disaster relief and this has been principally on an ad hoc basis.

Meetings with local and international NGOs during the design process focused on their interest in participating in famine mitigation and disaster response activities and gauging their capabilities to work under contractual arrangements. No attempt was made to catalogue NGO/PVO projects or to evaluate their work in any traditional sense.

The focus of international PVOs such as AFRICARE and CARE has been to work in a few regions and in certain sectors, managing projects

with a clear development objective. AFRICARE, for example, works in Gouré providing technical assistance and resources for watershed development, land reclamation, rural water supply, and micro enterprise development. With field staff on site in this typically cereal deficit areas, AFRICARE is well placed to respond to local emergencies and organize small development projects. The DPM emergency fund could be used to contract AFRICARE to provide wells, pumps, latrines, or animal fodder in famine prone villages in regions where they currently operate.

CARE has projects in the health sector in Zinder, in bio-diversity and micro-enterprise in Maradi and a natural resource development and agricultural production project portfolio in the Tahoua Department. These projects are operated in close collaboration with the technical services on the arrondissement level. The managers of CARE/Niger are currently rethinking their natural resources management (NRM) strategy to give it a more community-based self-help focus with less reliance on FFW.

The CARE Director did express strong interests in expanding CARE's rural credit activities. His argument for limiting CARE's involvement to credit, rather than NRM, for short-term famine mitigation, is that credit is a traditional coping mechanism and much easier to administer than a FFW project. The strict accounting, logistics, and technical support needed to start up a FFW or CFW project is a serious constraint, especially given the mixed results and criticisms PVOs have faced in carrying these out. According to the CARE Director a rural credit program, in the chronically deficit Diffa region, could be quickly started with 4 trained agents, each in charge of a 25,000,000 FCFA portfolio managed through their Maradi/Zinder offices. The appropriateness of providing credit as a famine mitigation strategy merits further study.

CARITAS is prepared, as part of its charter, to respond to local emergencies and disasters and has organizations throughout the country capable of analyzing requests and mobilizing resources. For example, as Chadians crossed into Niger from the Lake Chad region during recent civil strife, CARITAS received a request to provide emergency food relief. In response, they asked a donor to finance food, supplies, and transport. Through their district offices, executive committees, and volunteers around the country CARITAS is able to provide the logistical support and human resources needed to a relief action.

CARITAS is also active in NRM, providing support for land reclamation and reforestation. The question is whether it can quickly set up an operation in a target area and manage an engineered, public works project, using cash and food incentives to hire the people most in need of work. Land reclamation and watershed development are technically demanding and labor intensive, requiring a web of complementary interventions to

sustain the work. Technical depth is a prerequisite which NGOs may lack.

The goal of the World Food Program (WFP) is to promote development by providing assistance to host governments that directly increase agricultural production and improve food security. For the most part, this involves program food aid. In Niger, the WFP provides approximately 12,000 mt of food aid programmed through two supplementary feeding projects and two food-for-work (FFW) projects, for a total of almost 55 million US dollars.

The supplementary feeding projects are administered by the Ministry of Education for school canteens in food insecure areas (since 1986) and by the Ministry of Public Health for hospitals and MCH clinics across the country (since 1988). The FFW projects are administered by the Ministry of Agriculture for activities in NRM, public works, training and cereal banks (since 1986) and by FAO for the Keita Integrated Development Project (since 1989).

The projects have met with mixed results ranging from serious management problems leading to cancellation to relative success in the FAO administered program. WFP's overall view is that management and accountability of food aid programs are improving.

WFP is also involved in emergency food aid as donor spokesperson to the GON on behalf of the multidonor food aid committee. They have emergency funds of up to $50,000 for local purchases and operations. They have attempted to purchase food from the GON security stock but, instead, purchase on the open market at a better price. As far as operations are concerned, they have had difficulty mobilizing cash for inland transportation and are considering monetization to establish a transportation account. Interviews with the WFP representative indicated interest in WFP contribution to an emergency fund such as that being considered by the DPM program.

B. Local Organizations

The history of local NGOs in Niger is brief. With the exception of the Nigerien Red Crescent, local NGOs were prohibited until 1988 and it was not until quite recently that they started managing grants from outside donors.

Solidarité Canada Sahel (SCS), a Canadian local NGO support project, recently began providing grants to local NGOs to help them participate in donor financed activities. Currently SCS has 45 NGOs on roster, though only six or seven are thought capable of managing grants larger than $50,000. Many NGOs are only at the stage where they are looking for seed money to open an office.

One local NGO that could provide appropriate services is the Association des Puisatiers de la Republique du Niger (APRN).

Developing water points for domestic and livestock use and dry season garden irrigation is one mitigation intervention APRN could provide. Other organizations could deliver agricultural packs to disaster victims, or organize the local purchase and distribution of cotton seed for animal fodder.

The Nigerien Red Crescent is the only NGO that predates 1988 and it has had strong ties with the government and the International Federation of Red Cross and Red Crescent Societies and national Red Cross Societies outside of Africa. For assistance in organizing a food relief operation, the Federation has 140 ton transport capacity, good communications, and volunteers (under the Nigerien Red Crescent) throughout the country.

The SCS, GAP (local NGO coordinating office), and the UNDP are actively coordinating and supporting local NGO projects in Niger. There is a considerable potential for development of local disaster response capacity on the part of local NGOs, particularly if these structures are supported by international NGOs.

C. Works Programs

Food for Work (FFW) and Cash for Work (CFW) are obvious disaster mitigation options. Work is created in return for food or wages. The neediest self-select themselves eliminating free distribution for everyone. Marginalized people are able to hold on to a few remaining assets and avoid destitution and forced migration. In famine mitigation, FFW or CFW can enable victims to support themselves when traditional coping mechanisms are critically stretched. But the actions have to be well planned, quick and done with enough technical input that the work brings results and lasts.

The Keita Integrated Development Project financed by the Italians through the FAO has been described as a model FFW project. It has employed 2,000-4,000 workers for the past eight years reclaiming land using earthen dikes to capture runoff. Trees and grasses are planted in agro-pastoral zones. Gabion check dams are constructed to slow spate flows and increase infiltration. Migrating dunes have been stabilized. The local technical services have been completely absorbed into the project where they are provided with fuel and vehicles. Heavy machinery is used as necessary to subsoil land reclaimed by dikes.

The Keita Project uses FFW almost to the point of over engineering. Technicians are trained and are provided the resources needed to plan and supervise field work. Workers are paid on site at the end of the day. Major donor commitment is needed to replicate this model.

The CARE Galmi Rural Development project started in 1987 uses WFP FFW rations, under one subproject, to encourage local villagers to construct rock wall terraces and gabion check dams. Relying on

limited technical support and resources and local participation, the site stands in contrast to the highly engineered Keita Project. It is expected that low-input earthen engineering projects such as this will require considerable maintenance.

NGOs/PVOs often lack sufficient fuel and vehicles for technical counterparts. Nor do they have the resources to handle daily food distributions, use heavy equipment, or hire experienced engineers. If NGOs are given the responsibility of handling food aid, strict and at times tedious regulations are imposed which guarantee that the program will be under periodic tight scrutiny and subject to criticism. For PVOs/NGOs, FFW is a lightning rod for a host of practical and philosophical development issues.

For this and many other reasons, NGOs are wary of undertaking or continuing FFW or CFW projects. This severely limits choices for FFW famine mitigation but it certainly does not preclude developing the capabilities of some willing agent. CARITAS has expressed an interest in organizing this sort of mitigation activity, if an urgent need arose. Others may follow suit if needs are clearly identified and objectives and results justify the mitigation exercise.

GON FFW projects also lack resources. Planning and supervision are weak and there is a lack of machinery needed for hauling and subsoiling. If food is diverted the worker may receive only a partial wage. The physical work has a marginal payoff it is stands alone, uncomplemented by appurtenant measures up and downstream.

NIGETIP is a World Bank financed organization based in Niamey which acts as a clearing house for urban and rural development project proposals submitted from around the country. NIGETIP vets the projects and selects ones which their donors will sponsor. Pre-qualified consulting and construction firms are then asked to study the project proposals and bid. The consulting firm is responsible for the technical design, supervises the construction firms, and signs off on their work. NIGETIP pays both contractors in tranches and holds back a certain amount of the contract as a performance bond until all work is successfully completed. This development model was first developed in Senegal.

The NIGETIP contracting mechanism has been used once in Niger to do rural land reclamation and reforestation. Design and construction contracts are awarded to local companies and the workers are paid 750 FCFA/day. DPM could work through NIGETIP to finance medium-term famine mitigation projects such as road repair and land reclamation.

If quick disaster mitigation is called for, the NIGETIP model has considerable advantages. Design, construction, and supervision is contracted out locally. Cash is used up-front to pay the workers, even before the principals themselves are paid. The operation is

automatically closed out after the defined tasks are completed, slashing overhead costs.

The workers, however, since they may be paid a relatively good wage may not be the most in need of assistance. This model for doing rural development work has been tested once on a well selected area next to a good road. There is a question whether a private company, with other options, would work off road and risk damaging its vehicles and changes for performance bonuses.

D. Conclusions

Disaster preparedness and mitigation straddles relief and development and risks doing neither well unless limits are placed on the mitigation/development side. Setting those limits would be a lot more difficult were there a plethora of PVOs and NGOs well established around the country interested in short and medium-term mitigation. Experienced PVOs in Niger either have full plates and are not in a position to execute short-term mitigation projects (especially the FFW/CFW genre), or they have certain sectoral interests which they are trying to strengthen.

The objective of an emergency works program to provide food or funds to affected populations in response to an emergency can mean that a long-term development objective must be made subsidiary to immediate action. As a result, emergency works programs should be selected based on immediate impact, rather than because of any long-term developmental benefits and should be evaluated accordingly. Niger's experiences with FFW and CFW are not as extensive as elsewhere in Africa. However, a range of experiences do exist for the SAP and DPM to review and consider.

ANNEX J

LITERATURE REVIEW: DISASTER MITIGATION AND PREPAREDNESS

The following review was undertaken as part of a study on victim's perceptions to famines/disaster within the Disaster Mitigation and Preparedness Project design. The perception study has the purpose of (1) better understanding how 'insider's' view and respond to disaster and food stress and (2) tapping the local knowledge base -- both of which are fundamental to building self-sustaining interventions.

The literature on disaster and famine is immense. For the current purpose, concentration was placed on material relevant to the Sahel and Niger from a socio-economic perspective. The following synthesis has been liberally extracted from those documents to cover thinking and empirical results related to: famine/disaster in Africa; food security; vulnerability; early warning systems; coping strategies and traditional assistance.

I FAMINE/DISASTER

In Niger, as in Africa in general, disaster, defined as a *crisis that outstrips the capacity of a society to cope with it*, is largely synonymous with famine. In the early 1970's, famine was explained as the failure of food production due to natural causes, especially drought. A food crisis was seen as a problem of food supply. Today we recognize that famine is not the result of a single event or one bad production year. Famine conditions that result from drought usually develop over several years. And in Africa, while drought is associated with famine, it is not the cause of famine. Drought might be a precipitating factor, but it is one among other factors including the social, economic (regional, national, international systems), political and environmental situation that allows for a collapse in food access.

Over the years, the definition and causes of famine have changed with concurrent changes in disaster mitigation activities. Currently, the focus is on the distributional issues inherent in food insecurity. The move is from seeing food crisis in Africa as problem of food supply (i.e., people starve because of insufficient supplies of food, food availability) to understanding famine as an issue of access to food, or food entitlements.

> Starvation is characteristic of some people not having enough food to eat. It is not characteristic of there not being enough food to eat (Sen, 1981).

Increases in national food production do not mean that access by particular socioeconomic groups has improved. Access depends upon purchasing power, market efficiency, and transportation networks among other factors.

The most recent analysis of the cause and impact of famine comes from de Waal's work in Darfur, Sudan during 1984-85. He found that satisfying the pangs of hunger was not people's priority. This challenges the widespread belief that obtaining food is the central preoccupation of famine victims. Rather, their priority was to preserve their way of life by keeping enough resources to cultivate the next rainy season or keeping their animals alive. Likewise, de Waal suggests that the some 100,000 deaths were caused primarily by a health crisis, not by a lack of food. Localized disease outbreaks, particularly measles and diarrheas, resulted from population concentrations and lack of sanitation and clean water. He argues that rather than food aid, measles vaccines, clean water and better sanitation would have saved lives. Food aid served a more important function as an income transfer than as a nutritional supplement in reversing grain price increases and allowing food aid recipients to take fewer loans and sell fewer animals at distressed prices.

> ...it appears that relief interventions simply misdiagnosed the problem, treating a major health crisis as if it was (only) a food crisis...tens of thousands of lives might have been saved if social disruption had been minimized by taking steps which allowed people to stay in their villages or, failing that, if water supplies had been kept clean and children immunised against measles and other diseases.

Based on a four-year study of famine in Africa, research from the International Food Policy Research Institute (IFPRI) concludes that famine is preventable in Africa. It is almost entirely "man made" and only partially a result of sudden natural disasters. Their conclusions emphasize building productive capacities of rural households through appropriate economic policies. Famine is considered inseparable from poverty. The underlying conditions of famine-stricken households are lack of employment opportunities, limited assets such as cash or livestock, isolation from major markets because of scarce roads and transportation, unavailable credit options, lack of adequate farm technology and poor health and sanitation. Drought triggers famine because poverty exists (Von Braun, 1991).

II FOOD SECURITY

Food security is defined as *the access by all people at all times to enough food for an active, healthy life.* Food insecurity, in turn, is the *lack of access to enough food* (World Bank). A further distinction is made between chronic and transitory food insecurity:

> Chronic food insecurity is a continuously inadequate diet caused by the inability to acquire food...Transitory food insecurity is a temporary decline in a household's access to enough food and in its worst form it produces famine.

In Niger, the 'soudure' or hungry period is a time of seasonal food insecurity. Food insecurity may be considered transitory because it occurs during only part of the year, but is chronic in that it occurs every year (World Bank Working Paper). The transitory food insecure, probably the most dominant group, have developed multiple coping mechanisms to carry them from one harvest to the next. In years of total crop failure or drop in purchasing power, however, periodic disasters occur. In contrast to the seasonally insecure, the chronically food insecure fail to eat enough throughout the year. Others describe food insecurity in terms of intensity or severity where food insecurity is classified as none, mild, or acute.

In the Sahel, the more northern areas are generally considered to be more food insecure. Data from both Mali and Burkina Faso, however, have not found this. In Mali, northern households have developed more diverse income sources and so are less dependent on rainfall levels. They use off-farm income to purchase food whereas southern households attempt to assure household food security through their own production and tend to purchase grain only when this strategy fails. Thus, northern households have evolved strategies that allow them to mitigate the climatic effects on consumption to a greater extent than southern households (Staatz, D'Agostino, Sundberg, 1990). Similar findings come from Burkina Faso (Reardon, Matlon and Delgado, 1988) where the more northern populations were found to be less vulnerable to production deficits based on climate since they are involved in a more diversified, multi-sectoral strategy. "Targeting of food aid was guided primarily by indices of rainfall and per hectare yields. These criteria appear not to have taken directly into account that the Sahelian households compensated for lower per hectare productivity by cultivating a larger area per adult equivalent, nor that they earned more non-cropping income, which gave them more purchasing power than their Sudanian counterparts." (pg. 1066)

Results from the IFPRI survey of 100 households in Western Niger indicate that in a 'good year' (1983-4), most households produced enough millet to feed themselves for at least a year after harvest in both the northern (Ouallam area) and intermediate zones (Boboye area). In the drought year of 1984, the average household was able to feed itself for four months from its harvest. By 1985, only about 1/3 of the sample households were able to make it through the year on that year's harvest. From the data, purchasing power appears to be similar between years, implying that there are sources of non-cropping income which compensate for fluctuations in cropping income. Results point to the importance of non-agricultural activities throughout the year, not simply in the 'off-season' (Hopkins and Reardon, 1989). In an ICRISAT Burkina survey, non-agricultural income was found to supply approximately half of total rural income.

III VULNERABILITY

Further understanding is provided by the work on vulnerability which is viewed as distinct from poverty. It is a concept that best explains who suffers in a disaster. Vulnerability is defined as *defencelessness, insecurity and exposure to risk, shocks, and stress* (Chambers, 1989). There is a shift from viewing famine as mass starvation to looking at the vulnerability of specific groups of people. Famines do not affect all equally: some suffer, while others may gain during a crisis. The rich seldom starve. Even in famine prone regions within a country, where everyone is relatively poor, the impact of the crisis varies by socioeconomic group.

The concept of "entitlement" as developed by Sen (1981) acknowledges that individuals have differing access to resources, land, labor, and capital and thus, differing levels of vulnerability - between and within households. Differing access to resources within households means that some family members bear the brunt of a shortage more than others. Levels of vulnerability vary over time and according to social, economic, and political status (Downing, 1990). For example, herders often find themselves in a disadvantaged position compared to settled farmers and rural residents as compared to urban dwellers.

Also, vulnerability needs to be defined according to the risk involved; e.g., vulnerability to ill-health; vulnerability to food shortage, vulnerability to famine; vulnerable to disaster, including epidemics, floods, famine, etc.

Downing (1990) argues that analyzing vulnerability requires identification of the unit and scale of analysis whether it be the region, household, or individual level (see Downing, 1990:25 for indicators for each level):

1) Regions are vulnerable to food shortages (shortfall in food availability) as influenced by geographic location and institutional development, for example, the adequacy of infrastructure to support agricultural production, distribute food to markets and to provide health services.

2) Households are vulnerable to food poverty (and to regional food shortage through food poverty). Food poverty is the lack of resources to obtain sufficient food for the entire household as influenced by income, cultural preferences, age-sex distribution and household composition.

3) Individuals are vulnerable to food deprivations (often related to household food poverty and regional food shortage). Food deprivation occurs when food consumption and utilization are insufficient to meet nutritional requirements as linked to nutritional, health and social status.

Household food security can be gauged as the degree to which food availability (own production, exchange production, transfers, and assets) meet consumption requirements. Measures of food availability may then be defined as follows (Downing, 1990):

> Subsistence production: yields and production from food crops, livestock and common areas. Potential indicators are rainfall, NDVI, agricultural statistics, crop inputs, labor.
>
> Exchange production: cottage and artisanal activities, off-farm employment, cash crops and labor. Primary indicator is market prices.
>
> Transfers: access to and level of contribution from government and nongovernmental sources (including food aid), remittances from relatives, and community sharing. Indicators might include food aid stocks and cash crop prices in areas of migrant labor.
>
> Assets: land, buildings, jewelry, livestock, food stores, and cash. Indicators might rely on market observations of asset sales.

The focus on vulnerable groups allows greater specificity in assessment and monitoring tools. Explicit is that vulnerability varies among groups of people. The specifics of who is affected in a particular famine/disaster, depend on the causes of the situation as they relate to the entitlements of different groups and individuals within these groups, e.g., pregnant and lactating women, pre-school age children, and the elderly are often the most vulnerable.

While there is interest in categorizing populations by levels of vulnerability -- herders (nomads, transhumant, sedentary, agro-pastoralists) farmers (smallholders, migrant, landless), urban residents -- rarely do social groups pertain to one production system alone. Degrees of overlap exist between production systems. Even 'pure' pastoralists rarely rely upon livestock as their sole source of income. In the Sudan, for example, it was found that almost all pastoralists have non-livestock sources of income. However, socioeconomic patterns may be discernible to allow categorization of types as "predominantly pastoralist" or "predominantly agriculturalist" to indicate differences in response, e.g., pastoralists are generally less willing to sell or slaughter livestock.

Increased levels of vulnerability have been linked to various socio-economic changes including (1) population growth and migration where new immigrants do not have sufficient knowledge of the surrounding ecosystem and lack kin support networks, (2)

sedentarization of pastoralists who may be subject to land degradation, local crop failures and lack mobility to seek distant pastures, (3) changes in land distribution from dispersed to consolidated areas eliminates possibilities to optimize favorable micro-environments, and (4) changes in land tenure from communal to freehold increases vulnerability of those without rights or who obtain marginal lands.

Markets, transport, communications. In assessing vulnerability the spatial dimension must also be considered. Vulnerability is dependent upon climate, soils and infrastructure (natural and manmade resources); nature of the markets and spread of market failures, and transportation infrastructure. Of concern is how easily food moves from surplus to deficit areas. Such movement can be constrained by government restrictions, urban dominance, poor roads, minimal transport, uncertain information about demand in remote places, etc. Agadez, Arlit, Tcherozerene may be chronic food deficit areas but mining and tourism, for example, provide alternative economic possibilities to reduce vulnerability if the market functions effectively.

The functioning of rural product and factor markets in grain deficit zones plays an extremely important role in determining household food security. In particular, the ability of rural distribution markets to deliver grain reliably to grain-deficit rural households at low cost is central to the ability of these households to assure adequate levels of consumption. Price volatility hits hardest those poor households that sell grain early in the season to meet pressing cash needs (especially tax payments) and repurchase grain late in the season to meet consumption needs.

Some researchers assert that vulnerability is increasingly linked to people's dependence on markets. The poor are particularly vulnerable to adverse price movements. Local traders hold power to mitigate or increase stress of villagers in food crisis situations. Household vulnerability is closely linked to local market conditions which in turn are linked to national and international economic situations. On the other hand, one can also argue that those who are less diversified and more isolated (less integrated into the market) are more vulnerable to climatic irregularities.

The IFPRI household survey in Niger indicates that rural households purchase substantial amounts of food, mainly cereal, in both good and bad years. This again points to the importance of non-cropping income and its effect in easing fluctuations in crop production. Cereals, mainly millet, dominate crop purchases. Farmers are not self-sufficient in food production. Agricultural coping strategies can reduce the impact of drought but not eliminate the need for food from other parts of the country and region which demand the need for viable redistribution channels.

IV EARLY WARNING SYSTEMS[1]

An Early Warning System (EWS) is defined as *a system of data collection to monitor people's access to food in order to provide timely notice when a food crisis threatens and thus to elicit an appropriate response*. Early Warning Systems grew up in the wake of the African famines during the 1970s. Since then they have turned from warning of impending crisis to continuous monitoring of the socio-economic conditions of specific groups (Davies et al, 1991).

Indicators used in EWS have evolved from a focus on crop production and rainfall data in the 1970s; through remote sensing and nutritional data in the 1980s; to an emphasis on socio-economic information in the late 1980s and early 1990s. The current emphasis on the merits and shortcomings of various indicators, however, risks to divert attention away from the basic issue which is the use and effectiveness of information generated by EWS in policy decision making.

Different sets of information used in early warning are categorized as meteorological, natural resource, agricultural, nutritional and health, and socio-economic (see Davies 1991 for discussion). Limitations of some of the more conventional indicators have led to the use of socio-economic indicators because, ultimately, famine is a socio-economic event:

> Crop forecasting and food balance sheet assessments alone can at best let us know where particularly vulnerable areas lie, but they can say little about how close to famine are the people living in those areas, or which groups and classes within that population are most vulnerable to famine (Cutler, 1985 in Davies et al, 1991:26).

Types of socio-economic indicators for early warning include (as presented in Davies et al, 1991):

1) market indicators: signifies the importance of exchange

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[1] Currently, the FEWS system in Niger identifies three major groups: farmers, herders and urban dwellers though for the latter there is inadequate data to assess vulnerability. Farmers and herders make up 85% of the population and are considered to have the highest level of current vulnerability. The FEWS vulnerability assessment is based on quantitative (production, prices, health and nutritional status) and qualitative (alternative income sources) information from GON databases and reports for each arrondissement. Preliminary screening is based on cereals production (millet and sorghum) for agriculturalists and pasture production and terms of trade for herders. Terms of trade is measured by how much millet the sale of a buck (male reproductive goat) will buy.

relationships as a determinant of famine.

2) migration: important but difficult to distinguish between different types of migration, e.g., seasonal versus destitution migration; local labor.

3) local off-farm employment and price of labor: only possible for local-level information systems.

4) gathering, bartering and consumption data: indicate food stress but are rarely included since difficult to collect.

5) assets: investments, stores and claims (Swift). Food stores are probably the most widely monitored form of asset but there are practical difficulties in monitoring them. Few examples exist of EWS monitoring households' or individuals' claims on one another given the difficulty in monitoring Inter-household transfers and loans, however, have been identified as part of the sequence of coping strategies. Sales of assets can be monitored as part of market monitoring.

6) coping strategies: requires collection of a range of socio-economic information to understand coping strategies and therefore to identify appropriate indicators.

While thinking and conceptual approaches have moved away from predicting food shortages at the national level to assessing the vulnerability of particular groups in terms of their access to food, in reality, many EWS, especially at the national and international levels, still are geared to estimating national food deficits. In building systems that include socio-economic data, the primary consideration is the agency's time and resources available for data collection and analysis and use of the information.

V COPING STRATEGIES

Coping strategies are defined as *the social and economic choices, within a limited range, that people in famine prone areas of the world make when faced with threatened food shortages* (D'Souza, 1989:7). A focus on coping strategies in disaster mitigation is an attempt to take into account the priorities of those affected by famine/disaster. It is to capitalize on what people can do for themselves before drawing on limited external resources. The concern is to gear responses to reinforce existing positive coping strategies, not to breakdown or ignore systems that have worked.

The essential issue in famine prevention is to avoid, at all costs, social dislocation since it is this which is the main killer. One way, it is suggested, of achieving this is to

identify, understand and then support local coping strategies as the cornerstone of famine prevention programmes (D'Souza (1989:7).

Proponents of microlevel preparedness and mitigation efforts argue that by monitoring coping strategies or *behavioral indicators of food deficits*, much information can be gleaned about the imminence and threat of famine. Likewise, it will be possible to identify coping mechanisms which may be less effective than in the past or which are having negative impacts and may need to be discouraged.

Specificity of coping strategies. During the 1980's considerable research was undertaken on local strategies for coping with famine. This research found that coping strategies are often specific to particular groups as related to economic status and social composition as well as the local economy. Coping strategies vary from one locality to another, by socio-cultural group within a locale. They are not static, but vary by year in relation to resources conserved/depleted from the previous year and nuances of the local economy. In Niger, a successful drought strategy for WodaaBe herders is to move their animals south as soon as it is evident that their traditional pastures are affected by drought. In contrast, for the Twaregs of the Tchintabarraden region during the 1984 drought, the more successful ones were those who stayed in their traditional northern region (Cord et al., 1986).

To use coping strategies as indicators of food stress, early warning systems must be able to assess the process of intensification (stressful events growing worse) as well as to know what is 'normal'.[2] The distinction must be made between that which may occur seasonally and that which is 'unexpected' or 'abnormal' which requires a depth of analysis uncharacteristic of most early warning systems. Also, socioeconomic indicators must be applied soon enough, that is during the early stages of food stress, to enable an appropriate and timely intervention. Because of these difficulties, it is likely that explicit incorporation of coping strategies in early warning systems will remain marginal (Davies et al, 1991).

Others contend that EWS could be improved by monitoring selected coping strategies. A Devries report (1987) prepared for FEWS/Washington reviewed approximately 200 documents in order to examine how coping mechanisms can be used as socioeconomic indicators of famine and their linkage to plausible famine mitigation interventions. The authors argue that coping mechanisms

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[2] de Waal argues that normal years rarely occur; rather what is real is a normal spread of some good and some bad years. USAID/Niger field data with Bella communities supports this where their expectation of a 'normal spread' is a two-year cycle of good and bad years.

can be used as socioeconomic indicators of the famine process and they do reflect various stages of food crisis. Current effort is moving toward constructing frameworks that link indicators to stages of the food crisis and to appropriate interventions. The authors feel that it is possible to have a generic framework to which one adds site-specific information provided by local monitors. Swift and others recommend the use of local paraprofessionals, for example, herders, themselves, in the local monitoring of food and animal feed security.

A. Types of Coping Strategies

Campbell (1990) distinguishes three major types of coping strategies:

(1) Economic strategies are the basis of product diversity that characterizes production systems and is essential to risk reduction in uncertain climatic environment. Farmers spread risk by cultivating a variety of crops that respond differently to different production conditions. The rationality of mixed cropping has been widely recognized as has been the value of mixed livestock keeping where mixes of cattle, sheep, goats, camels make use of different types of grazing resources and quantities of water. Economic diversity is further extended through off-farm activities and labor migration. Smallholders work to accumulate resources that can be liquidated in times of need: stored grain, livestock, personal possessions, implements and labor.

(2) Social strategies are those which redistribute available resources in a community through institutions such as the family, clan and age set. Sharing of resources within a community is based upon the concept of reciprocity. Help at one time may mean repayment of assistance in the future. The range of reciprocal activities is great including loans or gifts of money, food, and/or animals, splitting of herds into smaller units, sending children to live with relatives, encouraging children to eat with neighbors, marrying young daughters to wealthy men in expectation of assistance, etc. There are indications from other African societies that traditional social strategies are breaking down. For example, the extended family, in being replaced by the nuclear family, is losing its cohesive role in organizing both the production and distribution of food. In Zimbabwe, farmers rely more on the market and the state as a source of food and on alternative institutions such as farmer organizations than on the extended family (Campbell cites Bratton, 1987)

(3) Ecological adaptations include such practices as strategic planting of different crops related to soil qualities and micro-variations, systems of fallow rotations, manure practices, intercrop nitrogen-demanding grains with nitrogen-fixing legumes, and movement patterns of pastoralists that access wet and dry-season grazing and water.

B. Coping Strategies are Part of Rural Production Systems

Coping strategies "are not unique measures resorted to only in times of stress but are elements that exist at all times and assume greater importance under difficult conditions" (Campbell, 1990:154). They are not haphazard or random in manner (Corbett, 1988). Rather, coping strategies reflect thoughtful decision making where farmers weigh options, consider resources and possibilities and make decisions in sequential order as events unfold. de Waal's study in Darfur, Sudan of 1984 found that once it is evident that harvest failure is imminent, "people know that they have to make their resources cover a full twelve to fifteen months and husband them accordingly". They consider resources available, current and expected food prices, seasonal opportunities for wage employment and availability of wild foods. Drought "victims" are not passive but are active players in searching for viable alternatives.[3] Crisis arises when adapting mechanisms break down.

Coping strategies are categorized as

1. anticipatory, precautionary or insurance strategies - those that insure farmers against hardship. They are developed in response to repeated exposure to the same non-acute risk such as seasonal food shortages and include such practices as thinning a crop during moisture stress or decreasing manure applications.

2. crisis strategies - survival strategies that are resorted to when acute degrees of stress are experienced. They are developed to cope with unusually severe or unexpected threat to food security and threat of famine such as sales of assets and mass migration (Rahmato from research in Ethiopia and Corbett (1988).

C. Asset Management

The way a household manages its stock of assets is a critical part of its coping strategies and thus indicates its food security situation (Corbett, 1988). The quantity and kind of assets a household possesses determines its current and future income. Two types of assets are distinguished:

(1) assets which can be easily liquidated and form a type of savings and self-insurance, e.g., small stock and jewelry;

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[3] "Victim" may not to be an altogether appropriate term since it implies helplessness (Frankenburger).

(2) assets which serve as stores of value, key productive assets that generate streams of income for the household, e.g., land or cattle.

When households are faced with declining entitlements to food, they dispose of those assets which are held primarily as liquid savings and do not readily dispose of key productive assets. At the same time, they reduce food consumption, gather wild foods, increase petty commodity production and labor migration. Watts research in northern Nigeria (1983) found substantial difference in the way households behave during famine depending upon income levels. In the semi-arid agricultural areas, capital ownership is the key variable in determining how farmers respond to drought (Swinton, 1988). Swift (1989) suggests that "low asset status in rural communities is a particularly good indicator of vulnerability."

In an examination of farm transactions in Madarounfa arrondissement following the 1984 harvest, it was found that transactions roughly fell into three phases of drought response. Immediately after the harvest (Sept - December), farmers prepared for hard times by selling livestock, especially cattle and reinvested in cereal. During the second phase (Jan - March), non-agricultural work and temporary migration reached their peak. By April, stocks were running low so for the third phase (April - Aug), farmers turned again to selling small stock and received food aid. Sales of assets other than livestock appeared less important. However, larger loans were sometimes secured by pledging land which entitles the lender to use the fields until the loan is repaid and can lead to permanent transfer of usufruct rights that equate with ownership. Interhousehold loans, principally in cereals, were important but not farm equipment sales. During the final months before the new harvest, food aid assistance played a significant role. The authors point to the importance of livestock liquidation in being able to offset cereal costs, particularly in a production deficit year. For the farms studied, assets were sufficient to subsist until the next harvest without food aid but the cost in future productivity would have been high. Food aid obviated the need for farmers to liquidate their assets to a level from which it would have been extremely difficult to recover (Swinton, 1988).

Because asset value is socio-cultural specific, it is necessary to understand the value attached to assets by different groups and households. Sheep and goats, for example, may be considered a liquid asset but they are likely to have different value for farmers and pastoralists. Households which rely on crop production for food are more likely to keep smallstock as an insurance/saving asset and liquidate them easily. In contrast, pastoralists are unwilling to sell or slaughter animals as are crop farmers in very marginal areas who rely as much on small stock as cropping. Other limitations to using assets as proxy indicators for income need to be considered: assets often do not indicate short-term fluctuations in income and ownership may be difficult to define

(e.g., land and equipment may be purchased in the name of another). In the above example from Madarounfa, Hausa farmers sold cattle early to reinvest in grain, unlike the Fulani who placed a high premium on keeping cattle and sold cattle only in exchange for cereals.

There is a need to understand what households are trying to do and why. Otherwise, it is difficult to identify true signals of distress. What are the patterns of acceptable and non-acceptable work that may indicate stress? Are certain activities considered shameful or low-caste and only resorted to in dire need? Often a common strategy is to take up low paying income-earning activities such as farm labor, rope and mat making, carrying water, or collecting firewood. Often, the poorest who depend on these sources of income are crowded out in famine years.

D. Sequences of Coping Strategies[4]

Corbett (1988) uses empirical evidence from African case studies to depict asset management coping strategies as occurring in three major sequences:

> **Early Stage/Stage One: Insurance mechanism, "asset conserving".** Responses undertaken in the first stage of a coping strategy are a form of self or interhousehold insurance. Many have been developed to cope with predictable and nonsevere risks. Being able to draw upon these responses, depends upon building-up during noncrisis years, e.g. acquire surplus livestock, buildup grain stocks, invest in valuable disposable goods such as jewelry and household goods, develop systems of reciprocal obligations, safeguard reserves of wild foods. These responses usually involve the use of available family resources and do not entail the permanent loss of productive assets. Examples of insurance mechanisms include changes in cropping and planting practices (dry season gardening), sale of small stock and possessions such as jewelry, reduced consumption and ceremonies, collection of wild foods, use of inter-household transfers and loans, increased petty commodity production and migration for employment (Frankenburger).
>
> **Mid Stage/Stage Two: Disposal of productive assets, "asset stripping".** Asset stripping strategies jeopardize the future economic welfare of a household. Recourse is taken in the wider system of interaction where market and social relations

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[4] 'Strategy' is used in the literature to indicate forward planning that involves a series of events and activities. 'Mechanism' is used to denote a discreet activity/event.

are more important. In these responses, people begin to liquidate assets to ease shortages. Examples include sale of livestock, agricultural tools, sale or mortgage of land, credit from merchants or money lenders and reduced consumption.

Late Stage/Stage Three: Destitution. Responses in stage three are terminal leaving the individual virtually assetless. At this point, productive assets are sold and people migrate to towns or relief centers.

The stage that is reached when the famine eases largely determines future recovery. Different interventions will be appropriate depending upon the stage of the food crisis. Productive assets which are lost in distress sales may be difficult to reacquire. For example, herders in the Sahel who lost herds, had to turn to other livelihood sources, and are finding it impossible to restock to pre-drought levels.

The poor, those with fewer resources to bring to bear, enter the sequence first and move through the sequences more quickly. It is clear that food deficit situations amplify differences in economic status, particularly when reciprocal arrangements for redistribution do not exist or cease to function (Campbell, 1990). Drought has a differential impact on the poor. Changes the in concentration of livestock ownership in Niger and Nigeria after the 1972-73 drought is but one example (Mortimore, 1989). Asset losses, for example, loss of land through land pawning appears to be growing and is disproportionately borne by the poorest households (Sutter, 1982).

Mass migration has been characteristically described as the terminal indicator of destitution. De Waal's exposition of land tenure systems in the Darfur region of Sudan shows that decisions about whether and when to migrate are linked directly to security of tenure. Households with secure land rights felt freer to migrate than those with only usufructuary rights since the latter might risk having their land appropriated while the migrants were away.

Reversibility of coping actions. As one moves from one stage to the next, the subsistence base is eroded and it becomes increasingly difficult to reverse the downward spiral. Once a household's productive assets are liquidated, pauperization results.

A household's ability to cope is not just a function of its asset base. Research from the Sudan also shows the significance of educational levels. It was found in the aftermath of the 1985 famine, that children whose parents, particularly mothers, had attended school were significantly better off nutritionally than other children. For the population under food security stress,

Order and Stages of Coping Strategies from African Case Studies (Corbett, 1988)

Watts, northern Nigeria, 1973/74: sequence of 10 most commonly observed responses

1. Collect famine foods
2. borrow grain from kin
3. sale of labor power (migration)
4. engage in dry season farming (migration)
5. sale of small stock
6. borrow grain or money from merchants/moneylenders
7. sale of domestic assets
8. pledge farmland
9. sale of farmland
10. migrate out permanently

Cutler, Sudan, 1984

1. "Adaptive" strategies
   - sale of livestock (e.g. goats)
   - labor migration
   - self-employment (petty commodity production and trading)
   - use of credit from merchants
2. Sale of key productive assets
   - sale of tools
   - sale of prime breeding animals
   - sale of sundry household belongings
   - sale of land
3. Mass migration

Rahmato, Ethiopia, 1984/85

1. Stage One
   - reduction in variety and quality of foods consumed
   - collection of wild foods
   - reduction of number of meals per day
   - interhousehold transfers of food and livestock
   - barter exchange with neighbors and relatives
   - credit arrangements with relatives
2. Stage Two
   - temporary migration by adult males (in search of wage employment)
3. Stage Three
   - sale of cattle and oxen
   - sale of personal effects, e.g., jewelry and hand weapons
   - sale of housing for firewood and building material
4. Stage Four
   - migration of entire household in search of relief

DeWaal, Darfur, Sudan, 1984

1. First stage of destitution
   - gathering of wild foods
   - selling animals which are surplus to requirements
   - borrowing money or food from relatives
   - other forms of interhousehold assistance
   - one or more family members working as a day laborer
   - sale of possessions
   - migration with herds to distant pastures
2. Second stage of destitution
   - sale of animals which are required for subsistence
   - borrowing food or money from merchants at high interest
   - sale of required possessions
   - working as a day laborer (in such a way that it interferes with tending of household's own fields)
   - migrating out to seek work or charity in towns
3. Third stage of destitution
   - starvation
   - dependence on charity

mother's education was twice as effective in maintaining a child's nutrition level as the father's (von Braun, 1991).

Coping strategies have been classified according to the 3 stage sequence above up to a 7 stage sequence. For most, the key is in terms of understanding the sequence, stages, and downward spiral to the collapse of food entitlements. Some argue that it is impossible to identify a sequence of coping strategies, as one person's coping strategy is another's livelihood. Also, because poor people diversify to survive, it is difficult to distinguish between overtime trends and short-term changes in response to a particular drought.

From all the case material, it is clear that one can characterize coping strategies and define them but particular options selected by any given household in any given year vary in relation to the famine condition, local market conditions, available resources and community structures. The same coping strategies and responses will not be observed during all famines nor will the significance of commonly observed responses be the same everywhere (Corbett, 1988). Strategies may vary from region to region, community to community and even within households according to gender, economic status, age, social status and length of residence (Downing, 1991).

But even if the same strategies are not observed everywhere, there is considerable evidence that a common pattern can be discerned. "Evidence of such patterns might assist in the interpretation of the economic behavior that underlies household coping strategies, in the early detection of an impending famine, in the identification of which households are most vulnerable and in the design and management of relief programs." By examining coping strategies and knowing that they always follow a sequence, it may be possible to identify those strategies which are used earlier in the sequence and that indicate that a crisis is occurring. The need is for systematic analysis of variations within and between groups since coping varies by economic status, gender and age among other things.

Interviews with 60 Twareg herders of the Eduk-Kao, Tahoua region found the following responses to the 1984 drought: canceled migration to cure salee; stayed in familiar region; destocked; sold drought sensitive species (cattle and sheep) to buy goats and camels; took up cultivation in seasonal ponds; purchased feed supplements. The more successful herders reduced their herd size early, stayed in familiar territory rather than migrating, kept mainly goats and camels and rather than purchasing other animals they stocked cereals and feed supplements. Marabouts and forgerons who keep smaller herds and have alternative incomes tended to do better. Various recommendations are suggested to mitigate disaster which are tailored to local and regional needs: support of traditional migration strategies; stocking feed supplements in

good years at local and regional levels; early harvesting of failed crops to feed as livestock supplements later in the drought; promoting timely herder destockage; initiating herder's saving schemes to preserve capital gained through animal sales; undertaking specific animal health programs; creating opportunities for earning alternative incomes (Cord et al., 1986).

E. Use of Coping Strategies in Mitigation Activities

Mitigation activities must be based on coping strategies, at least not conflict with indigenous responses.

> Much ineffective aid has been provided during a famine precisely because outsiders (governments and international aid agencies) have not understood how people mitigate famines and have had different views on priorities. The main difference is that outsiders have treated famines as disaster 'events' regarding starvation as the main problem and food as the major need...victims view famines as pervasive, slowly-encroaching disasters within which food scarcity is one factor. These differences of perception are crucially important in deciding on appropriate mitigation strategies (Frankenberger).

While strategies offer a defense against hunger in many communities, they have become vulnerable to disturbance by the process of development. The question may be asked: Does food aid erode/disturb them in a positive or negative fashion? Campbell (1990) cautions that the loss of indigenous effective and low-cost means of reducing food deficits implies increased reliance on often less reliable and more expensive support structures such as government relief programs. Cutler has shown that during the 1970s famine victims did not expect government assistance so they moved in search of land, not charity or employment. However, in the 1980s, distress migration was to relief distribution sites. Over the years, government relief programs have set up expectations and impacted traditional coping mechanisms.

VI HOUSEHOLD AND GENDER FOCUS

While households are often taken as the unit of analysis, households may not be stable units (men may be absent during 6 months; pastoral households split-up to maximize grazing and labor resources); they are difficult to define in the African context and they are evolving. The recognition that famine impact does not fall equally on all household members has led to looking at within household differences. Most agree that children under five years of age face the greatest risk, as well as women and the elderly. The difficulty of data collection and processing is an issue in household level studies.

Because women are involved in different economic and domestic tasks and information networks than men, their participation during food stress periods is likely to be different. A gap in the literature exists on issues related to gender in times of food crisis such as differential access to food and the different actions taken by men and women (Davies et al., 1991). We may assume that women make more of the consumption decisions and day-to-day choices about storage and preparation especially in the absence of migrating men. In Cameroon, women have been found to be far more active in overcoming food stresses of the hungry season than men (Campbell and Trechter, 1982 in Davies et al, 1991). We might assume the same for Niger, particularly in regions where men are absent during the soudure.

It is also likely that there are gender differences in responses by stage in the coping sequence. For example, as grain becomes scarce, women turn to the grindstone which grinds husks with grain and so produces maximum bulk; then they move the grindstone indoors with all other food preparation so only family members are aware of meals (Colson, 1979 in Campbell). In Ethiopia, it has been found that men take responsibility for certain responses such as labor migration and sale of livestock and women take responsibility for gathering wild foods and allocating reduced food supplies among family members (Rahmato, Wollo Province, Ethiopia, 1984/85). Women migrating in search of work appears to be a later stage coping mechanism, at least among certain groups in Niger, and an indication of increased food stress.

Schroeder (1987) suggests, based on work in northern Nigeria, that highly stratified gender systems contribute to an inability to prepare for and respond to drought. For northern Cameroon, Campbell and Trechter list coping mechanisms by stage as differentiated by gender (in Devries, 1987):

First stage -- soudure
- sale or slaughter of animals (men and women)
- help from kin: loans of money and food (women)
- reduction in portions or not eating for an entire day (women)
- buying food (men)
- wage labor (men)

Second stage -- more severe (both men and women unless noted)
- family assistance
- wild foods
- food purchases
- selling stock
- migration
- special plantings (women)
- using food reserves (women)
- selling food
- selling livestock and borrowing money continues

VII ADEQUATE CONSUMPTION?

What we think of as "adequate" levels of food intake may not be what the victim defines. Rationing of food consumption is commonly observed and undertaken well before households have exhausted other means open to them to obtain food. A limited morning meal and no midday meal is common during the 'soudure'. Bella women north of Niamey have reported that they prepare one meal per 24 hours, consisting of millet pate with, perhaps, gumbo sauce, as standard fare from the end of the cold season until harvest (some 7 months). Reduced consumption is one of first responses that people take. This suggests that a part of the strategy of coping may be to become undernourished.

> Rising levels of malnutrition should be interpreted not just as signalling the failure of the strategies adopted, but as one of their costs. It is likely that this kind of reduction of current food consumption is undertaken in order to avoid having to dispose of key productive assets or take other actions which would impair the household's long term income generating capacity. Famines should be seen as an economic crisis for the households concerned, rather than simply assessed in terms of their medical or nutritional outcomes (Corbett, 1988:1110).

As de Waal found in the Sudan, obtaining "adequate" food is only one of many objectives that households have to face and between which trade-offs have to be made. During the height of the Darfur famine, people went hungry when there was grain in the market and cash in their hands. Thus, *access to food* may not determine hunger and mortality. People did not choose to be hungry, to starve, or to die but the importance of preserving economic viability exposed them to a greater risk of dying. Farmers tried to guard enough resources to be able to cultivate when the rains came and herders struggled to keep animals alive.

> Since a food crisis is also an economic crisis to poor people, it is obvious why "choosing hunger" is a rational response. Going hungry is, up to a point, the most easily reversible coping strategy of all -- hunger goes away as soon as you have your next meal -- whereas once you sell your cattle or your plough, you don't easily get them back.

VIII TRADITIONAL ASSISTANCE

Often, systems of inter-household loans and gifts are part of a community wide or kinship insurance mechanism that has evolved to deal with regular and non-severe food shortages. Not all members of a society have equal access to resources but in many situations the wealthy have had obligations to support the poor in times of

difficulty. Various forms of social networks help to redistribute wealth within a community including cultural norms of sharing food. Redistribution may take place according to kin or client systems, on the basis of Islamic injunctions to help the needy, or as alms given to Koranic scholars of all ages. Results from the IFPRI household survey in Niger indicate that households are as willing to transfer their crops (to cement social relationships) as to sell them which is attributed to the stigma attached to selling as opposed to transferring grain within a village. Such help, however, may not be equally distributed. Among the Twareg, for example, *tamesadeq* is a gift from rich to poor which is motivated by Islamic piety. However, it is "Given to impoverished ineslemen, sometimes to poor former vassels, but is given to iklan (Bella) only under extreme circumstances. "

A Wolof proverb from Senegal may be applicable throughout West Africa, "A man without debts is a man without friends." Debts represent personal ties, and personal ties represent security during crisis. Such 'claims' (a form of assets), however, only function when the debtor has sufficient means to assist when called upon.

It is commonly observed that inter-household transfers and loans increase in the early stages of response to food shortages but they dry up as the crisis deepens and becomes prolonged. When many members are all subject to the same risks at the same time, effective risk spreading becomes impossible. From interviews in Tanout arrondissement, villagers described the system of loans and inter-households gifts as having a levelling effect so that all members of the community fall to the same level of need by harvest time (field data, December 1991).

Research from India indicates that with the decline of patron-client relationships, access to food during individual or community crisis declines. People no longer exist in a socioeconomic structure that provides food security. There is evidence that this may be occurring in Africa as well as with the disintegration of traditional, kin-based control over resources and a lack of effective government interventions to assist the poor. The IFPRI data suggests that inter-household gifts are relatively insignificant which may imply a break down in the traditional safety net whereby the poor received help from others.

Likewise, access to donations and remittances depends upon a network of relatives and institutions that correlate to household status. The wealthier more often have access to borrowed food, have greater access to credit and other social support networks. Destitute households, those in need the most, usually do not have family/client networks to call upon. They are major beneficiaries only in severe drought. An example of this comes from the Twareg, where among upper-status herders, there is considerable circulation of animals between friends and relatives through gifts and loans of

varying duration and conditions which does not apply to the lower-status Twareg. The latter lack access to such credit networks and have more limited ability to reduce risk through intra-household relations since they lack access to redistributive networks (Starr, 1987). During the 1973-74 drought in Niger, larger producers did experience hardship but their superior command over resources including possession of surplus animals, ability to recall animals loaned out on contract and access to social insurance networks gave them a distinct advantage.

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ANNEX K

PRO FORMA BUDGET

The cost estimate and fiancial plan for the Disaster Preparedness and Mitigation Program, as shown on Table I, is based on the following assumptions and calculations:

- Standard costs for contractor services, averaged $18,000 per person/month for services including overseas travel, with 5 percent added for inflation.

- An estimated $250,000 will be provided through a U.S. PVO "buy-in" mechanism to finance additional studies and training activities.

- The design of DPMP required the lower cost in-country and third-country training options over U.S. based training. Long-tern training will be financed under the Mission's Human Resources Development project.

ANNEX E

DISASTER PREPAREDNESS AND MITIGATION
PRO FORMA BUDGET (IN THOUSANDS OF U.S. DOLLARS)

USE OF FUNDS	QUANT. PERSON MONTHS	GOV CONTRI-BUTION	A.I.D. CONTRI-BUTION	TOTAL COMPONENT AMOUNT	PROJECTED EXPENDITURES OF A.I.D. CONTRIBUTION Y1 93	Y2 94	Y3 95	Y4 96	Y5 97	Y6 98	TOTAL 1993 1998
1. CASH TRANSFER			10000.0	10000.0		5000		5000			10000
2. TECHNICAL ASSISTANCE				4545.0							
a. Project Coordination:											
1. Financial Mgt. Specialist	48		836.0		100.0	205.0	205.0	225.0	65.0	36.0	836.0
2. Disaster Oper. Specialist	48		836.0		100.0	205.0	205.0	225.0	65.0	36.0	836.0
3. Data Collection/Analysis Specialist	12		418.0			200.0	218.0				418.0
4. Prog. Develop. Specialist	48		836.0		100.0	205.0	205.0	225.0	65.0	36.0	836.0
5. Senior Accountant	48		140.0		15	30	30	30	35		140.0
b. USPSC Project Manager	60		750.0		150.0	150.0	150.0	150.0	150.0		750.0
c. FSNPSC Project Assist.	60		100.0		18.0	20.0	20.0	20.0	20.0	2.0	100.0
d. DRU Transition Team											
1. FSN Proj. Assist.	12		20.0		20.0						20.0
2. FSN Secretary	12		15.0		15.0						15.0
Subtotal			3951.0		518.0	1015.0	1033.0	875.0	400.0	110.0	
e. Short Term Consultants:											
1. Setting up Accountability Syst.	4		72.0		50.0	22.0					72.0
2. Disaster Preparedness	6		108.0		50.0	50.0	8.0				108.0
3. Improving Risk Assessment	6		108.0		50.0	50.0	8.0				108.0
4. Developing local Indicators	6		108.0		50.0	58.0					108.0
5. Teaching Rapid Rural Appraisal Method	6		108.0			50.0	50.0	8.0			108.0
6. Other experts	5		90.0			90.0					90.0
Subtotal			594.0		200.0	320.0	66.0	8.0	0.0	0.0	
3. TRAINING				428.0							
a. Short term in-country workshops	10		40.0		4.0	8.0	8.0	12.0	8.0		40.0
b. In-country seminars	28		196.0		21.0	28.0	49.0	49.0	49.0		196.0
c. Observations study tours	8		192.0			48.0	48.0	48.0	48.0		192.0
Subtotal			428.0		25.0	84.0	105.0	109.0	105.0	0.0	
4. COMMODITIES				797.0							
a. computer equipment	4		32.0		32.0						32.0
b. software	5		5.0		2.0	3.0					5.0
c. laser scanner	1		10.0		10.0						10.0
d. photocopy equipment	1		20.0		20.0						20.0
e. calculators	4		2.0		2.0						2.
f. vehicles	4		145.0		145.0						145.
g. office furniture			30.0		30.0						30.
h. office equipment			40.0		40.0						40.
i. household furniture/appliances	5		250.0		250.0						250.
j. household equipment	5		125.0		125.0						125.
k. radios - handheld/base station	8		63.0		63.0						63.
l. maintenance contracts - all equipment			75.0		10.0	15.0	15.0	15.0	10.0	10.0	75.
Subtotal			797.0		729.0	18.0	15.0	15.0	10.0	10.0	

ANNEX I

DISASTER PREPAREDNESS AND MITIGATION
PRO FORMA BUDGET (IN THOUSANDS OF U.S. DOLLARS)

USE OF FUNDS	QUANT. PERSON MONTHS	GOM CONTRI-BUTION	A.I.D. CONTRI-BUTION	TOTAL COMPONENT AMOUNT	PROJECTED EXPENDITURES OF A.I.D. CONTRIBUTION Y1 93	Y2 94	Y3 95	Y4 96	Y5 97	Y6 98	TOTAL 1993 1998
5. STUDIES				540.0							
a. Impact of Disaster assistance	6		108.0				50.0	58.0			108.(
b. Assessment of production and consumption	6		108.0				40.0	68.0			108.(
c. Milling rates	10		180.0			85.0	95.0				180.(
d. Household vulnerability in pastoral zone	8		144.0			60.0	84.0				144.(
Subtotal			540.0		0.0	145.0	269.0	126.0	0.0	0.0	
6. OTHER COSTS				11280.0							
a. Mitigation activities with NGOs			300.0			100.0	100.0	100.0			300.
b. Directorate of Crop Protection Support			500.0				250.0	250.0			500.
c. Local Support Costs		10000.0	480.0		30.0	75.0	125.0	125.0	125.0		480.
Subtotal			1280.0		30.0	175.0	475.0	475.0	125.0	0.0	
7. EVALUATIONS AND AUDITS				385.0							
a. Mid-term evaluation			100.0				100.0				100.
b. Final evaluation			125.0						125.0		125.
c. Financial Mgt. assessments of NGOs			60.0			15.0	15.0	15.0	15.0		60.
d. Non-federal audits			100.0				50.0		50.0		100.
Subtotal			385.0		0.0	15.0	165.0	15.0	190.0	0.0	
Budget subtotal		10000.0	17975.0	27975.0	1502.0	6772.0	2128.0	6623.0	830.0	120.0	17975.
8. INFLATION 5%		0	398.8	398.8	66.5	66.5	66.5	66.5	66.5	66.5	398
Budget subtotal		10000.0	18373.8	28373.8	1568.5	6838.5	2194.5	6689.5	896.5	186.5	18373
9. CONTINGENCY 4.93%		0	413.2	413.2	68.9	68.9	68.9	68.9	68.9	68.9	413
GRAND TOTAL		10000.0	18787.0	28787.0	1637.3	6907.3	2263.3	6758.3	965.3	255.3	18787

ANNEX L

Section 611(a)(2) Certification

All legislative action required for program implementation is either completed or expected to be completed in a timely manner. For initial implementation of the program and disbursement of the first tranche, a set of legal documents defining the organization and responsibilities of offices and positions within the government for disaster management will be required. The formulation of these documents, which are administrative in nature, is already under way and requires no specific or enabling legislation. Authority to promulgate the legal texts rests with the executive branch of the Government of Niger.

During the first two years of the project, attention will be given to defining the requirements for a complete, formally established, legally defined disaster response capacity within the Government of Niger. This process will take into account the current and historical administrative and legislative basis for disaster response in Niger and the changes that will take place with the establishment of a new political system following the end of the current transitional phase.

It is anticipated that limited legislative action after release of the first tranche may be necessary to fully establish a complete and legal disaster response capacity in Niger. Initial discussions on this issue are already ongoing between USAID/Niger and the Government of Niger. If legislative actions are necessary for the release of the second tranche, the required legislation will be defined during the first two years of the program. The administrative actions required for the release of the first tranche will help set the terms of the discussion and lay the groundwork for the passing of the necessary legislation.

Accordingly, it is concluded that the requirements of Section 611 (a) (2) are fulfilled

George T. Eaton
Director
USAID/Niger

9/29/92
Date

ANNEX M

GRAY AMENDMENT CONSIDERATIONS

USAID/Niger fully supports the intent and spirit of the Gray Amendment legislation. To that end, small business concerns, as well as other eligible disadvantaged entities, will be encouraged to participate to the fullest extent possible in program implementation. The Mission will encourage the participation of disadvantaged enterprises as either prime contractors or subcontractors.

AID Handbook 14, Subpart 726.301, states that all contracts in excess of $500,000 funded from the Development Assistance or Development Fund for Africa accounts must contain a provision requiring that not less than 10 percent of the dollar value of the contract must be subcontracted to disadvantaged enterprises, including disadvantaged enterprises that are not small. The Request for Proposals for the program contractor will specifically state that all submissions must include plans calling for not less that 10 percent of all subcontracting to be done with qualifying U.S. disadvantaged organizations and individuals; business concerns owned and controlled by socially and economically disadvantaged individuals, including women; historically Black colleges and universities; colleges and universities having a student body in which more than 40 percent of the students are Hispanic-American; and private voluntary organizations that are controlled by individuals who are socially and economically disadvantaged. Proposals received that do not allocate a minimum of 10 percent of all subcontracting to such entities will be deemed nonresponsive.