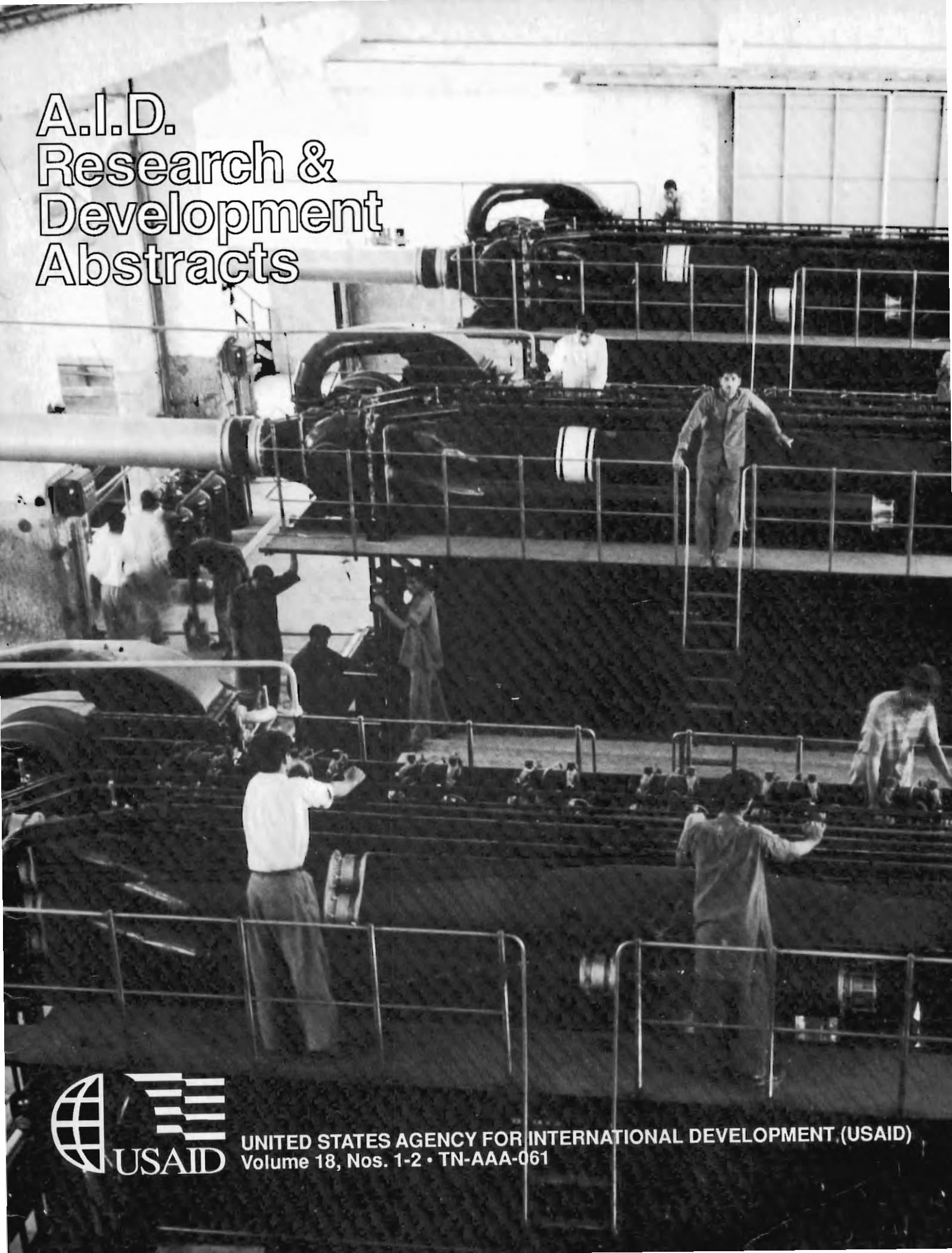


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A.I.D. Research and Development Abstracts

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Cover photo: Workers install electric generators in a sewage treatment plant in Karachi, Pakistan. (Credit: Agency for International Development)

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USER'S GUIDE TO ARDA CITATIONS

Item number	055	*PN-ABC-681	Document number
		MF \$2.16/PC \$14.95	Microfiche/paper copy prices
Title	Tilapia genetic resources for aquaculture : proceedings of the workshop on tilapia genetic resources for aquaculture, 23-24 March 1987, Bangkok, Thailand		
Author (s)	Pullin, R.S.V., ed.		
Institutions	International Center for Living Aquatic Resources Management U.S. Agency for International Development. Bureau for Science and Technology. Office of Agriculture (Sponsor)		
Meeting	(Workshop on Tilapia Genetic Resources for Aquaculture, Bangkok, TH, 23-24 Mar 1987)		
Supplementary notes	1988, v, 108p. : ill., maps, statistical tables, En		Serial title (if any), date, pagination, language
	ICLARM contribution no.457		
	ICLARM conference proceedings, no.16		
Project number	9311050		
Availability note	<i>*Also available from: International Center for Living Aquatic Resources Management, MC P.O. Box 1501, Makati, Metro Manila, Philippines</i>		

Tilapia are African fish that are used in warmwater aquaculture throughout the world. Some species, such as the Nile tilapia (*Oreochromis niloticus*), are highly versatile, herbivorous-microphagous feeders well suited to low technology farming systems. However, tilapia culture outside of Africa is based on a narrow genetic base taken from a few founder populations, while Africa itself, which possesses a wealth of tilapia genetic resources, is hard pressed in developing these resources for aquaculture and in conserving wild tilapia populations, many of which are threatened by irreversible change or loss. A variety of issues cognate to this situation were discussed at an international symposium held in March, 1987. These proceedings contain formal presentations on: (1) tilapia resources in Africa in general (two papers); (2) wild and cultured tilapia genetic resources in Africa (Cameroon, Ivory Coast, Ghana, Madagascar, Malawi, Zimbabwe) and elsewhere (Philippines, Thailand, Singapore and Malaysia, Israel, the United States); (3) methods used in tilapia identification and genetic research (six papers); and (4) gene banks and culture collections (two papers).

Abstract

001

PN-AAX-267
MF \$1.08/PC \$7.02

Strategic assessment of legal systems development in Honduras

Hansen, Gary; Millsap, William; et al.
Development Associates, Inc.

U.S. Agency for International Development. Directorate for Policy. Center for Development Information and Evaluation. Ofc. of Evaluation (Sponsor)

Jul 1993, x, 43 p., En

A.I.D. technical report, no. 10
5220296

Because Honduras possesses classic political and socio-economic characteristics of early developing countries, A.I.D.'s experience there with judicial reform through its Administration of Justice (AOJ) program holds particular relevance for replication. This report reviews the program's origins, impacts to date, management, and overall strategy, and presents the following lessons learned. (1) Merit-based rather than patronage-based career service is a major tenet of judicial reform in the region. However, because such reform regularly faces opposition, alternative strategies to ensure professional judicial appointments and performance should be considered in some countries. (2) The sustainability of judicial reform depends on support from political coalitions, both inside and outside the judicial system. (3) The creation and maintenance of such coalitions requires a high level of TA best delivered by a staff endowed with the experience, stature, and diplomatic skill needed to work with elite members of the judiciary. (4) Special focus should be given to developing strategies that will spread the benefits of the law to larger segments of the population. (5) Given Honduras' political volatility, diversified investments in both the judiciary and the NGO sector may increase the sustainability of judicial reform. (6) Because legal development programs are politically sensitive, USAID Missions should exercise tight control over the provision of TA. (7) The Honduran AOJ program demonstrates the feasibility of donor-host country cooperation in addressing politically sensitive issues. The assessment concludes that the program is reaching a critical

threshold at which the good faith and commitment of the Government of Honduras will have to be fully evident if reforms are to proceed.

002

PN-ABP-132
MF \$2.16/PC \$13.00

Planning for the 1993 national elections in Senegal: an evaluation

Guerin, Henriette; Morris, Lorenzo; Tessier, Pierre
U.S. Agency for International Development. Bur. for Africa. Senegal

16 Apr 1992, 44 p. + 7 appendices, En
9300086

In Senegal, nearly 30 years of virtual one-party rule and an inconsistent Electoral Code have discouraged the electorate from voting — just over half the population participates in elections. This report evaluates Senegal's readiness for its 1993 national elections and the role international funding could play. Following an overview of the country's electoral history, components of the electoral structure are discussed; these include electoral legislation, administration, policies, and procedures; party system structure; composition of the electorate; and budgeting information. The evaluation concludes that Senegal's inexperienced electorate is vastly unprepared for competitive elections; all levels of electoral administration and the Electoral Code are riddled with inconsistencies and ambiguity; and rules regarding funding for public and party obligations remain undeveloped. Despite these conditions, most of which were present during the violent 1988 elections, the 1993 election could potentially meet international standards of fairness given the strength of Senegal's democratic tradition and the prospect of international assistance/funding. A final section recommends ways in which international support could improve the 1993 and future elections; areas discussed include pollworker training, civic education, national identity cards, ballot design and secrecy, voting rights of citizens abroad, nonpartisan campaign commissions, international observers, and electoral boundaries.

003

PN-ABP-170
MF \$1.08/PC \$5.85

Applications of GIS [geographic information systems] technology to disease control

Glass, Gregory E.; Aron, Joan L.; et al.
Johns Hopkins University. School of Hygiene and
Public Health. Dept. of Population Dynamics
U.S. Agency for International Development. Bur. for
Africa. Ofc. of Analysis, Research and Technical
Support (Sponsor)
Feb 1993, 39 p., En
6980483

The increasing availability of powerful, easy to use computer hardware and software promises to make the Geographic Information System (GIS) a useful decision making tool in the public health domain. This booklet focuses on the application of GIS to the epidemiology of infectious diseases, particularly in Africa. It begins by describing the four major subsets of GIS and the five roles a GIS can play — for data collection/storage, data management, data querying, modeling, and decision making.

Applications of a GIS have included tracking vectors that carry diseases such as Rift Valley fever and trypanosomiasis. The application of GIS to the epidemiology of malaria, onchocerciasis, and AIDS may be key for the future.

Technical aspects of GIS are examined next, including methods for gathering and structuring data; data sources include administrative records of public agencies, surveys, and remotely sensed data from satellite imagery. While surveys have been the main source of data for GIS's to date, remote sensing holds great potential for epidemiology in Africa, and possible applications are discussed in some

depth. Following this is a short discussion of the implementation of a GIS within an organization. Applications of a GIS, while limited to date, have included tracking vectors that carry diseases such as Rift Valley fever and trypanosomiasis. The application of GIS to the epidemiology of malaria, onchocerciasis, and AIDS may be key areas for the future. Finally, the role of GIS in the public health decision making process is discussed; linking the science of GIS to real-life social and health issues is essential. Includes references, and an appendix describing six GIS software packages — MapInfo, MapInfo for Windows, IDRISI, GisPlus, pcArc/Info, and SPANS.

004

PN-ABP-284
MF \$2.16/PC \$18.85

Observing Guyana's electoral process, 1990-1992: report of the Council of Freely Elected Heads of Government

Emory University. Carter Center
U.S. Agency for International Development. Bur. for
Latin America and the Caribbean. Ofc. of Democratic
Initiatives (Sponsor)
[1992], 143 p.: ill., En
Carter Center of Emory University special report, no. 3
5040100

Guyana's election of October 5, 1992, its first fair and free election in 28 years, was a historic step in the evolution of democracy in that country and in the region as a whole; with the approval of the election by international observer groups, Guyana became the last country in South America to have had an internationally accepted election. This report documents the work of one of the observer groups, the Council of Freely Elected Heads of Government, beginning with electoral reforms initiated in 10/90 and lasting until the election. The report opens with a foreword by Jimmy Carter, Council Chairman and an active leader of observer delegations. It then provides historical background on Guyanese politics, which have traditionally been dominated by ethnicism, with the two largest ethnic groups, Afro-Guyanese and Indo-Guyanese, vying for power, and smaller groups playing coalition roles. The

four sections which follow detail the Council's role in and observations of: pre-election activities; the election campaign and the parties and candidates involved; election day; and the inauguration of the new administration and the transition of power. The main opposition party, the People's Progressive Party, won the election with 53% of votes cast. The campaign and election day were, on the whole, remarkably free of violence and appeals to race. Most significantly, the results were accepted by all parties and a peaceful transition of government took place. Guyana's experience teaches important lessons for other ethnically divided societies in transition to democracy and for international efforts to mediate democratic political solutions in other such countries throughout the world.

005

*** PN-ABP-757**
MF \$2.16/PC \$15.47

Special Issue: limiting administrative corruption in the democratizing states of Africa — proceedings of a conference held in Washington, DC, September 11, 1992

Charlick, Robert B., ed.
U.S. Agency for International Development. Bur. for Africa (Sponsor)
1993, p. 173-295, En
Corruption and reform: an international journal, v. 7, no. 3
Published by: Martinus Nijhoff Publishers

The extent to which the movement towards democratization in Africa can triumph over the administrative corruption of the centralized regimes that have dominated the continent for 30 years is highlighted in these proceedings of a 1992 conference on the subject. Formal presentations examined the following topics: (1) corruption as a method of governance (and sometimes a survival mechanism for new administrations); (2) possibilities for reform at the macro and micro levels; (3) case studies of administrative corruption and prospects for reform in the Sudan, Nigeria, and Sierra Leone; (4) overcentralization as a root cause of

administrative corruption; and (5) case study analysis of incidental, systemic, and personal corruption as a basis for appraising the causes of corruption as well as opportunities for democratic reform. A second section contains a commentary on the presentations, and theoretical and thematic syntheses of conference discussions. The commentary finds the presentations overly optimistic about the chances for reform, since it is unlikely that democratic empowerment will make many inroads into elite authoritarianism, certainly not without bloody conflict. A final paper outlines options for donor agencies in combatting administrative corruption and recommends efforts to strengthen nongovernmental actors such as the independent media, professional associations, and independent business associations as most likely to succeed in the short run.

006

PN-ABP-790
MF \$1.08/PC \$5.20

Assessment of the legislative sector in Egypt

Dessouki, Ali E. Hillal
Cairo University. Faculty of Economics and Political Science
U.S. Agency for International Development. Bur. for Near East. Egypt (Sponsor)
Apr 1993, 39 p., En
2980377; 3980377

Egypt's legislative sector comprises the People's Assembly, which is the country's main legislative authority, and the Shura Council, a consultative body. This report presents a technical and institutional analysis of each. The People's Assembly is profiled first, with discussion given to the Assembly's constitutional and legal framework, internal structure, administrative organization and personnel, central functions, and activities undertaken between 1971 and 1992. A similar but less extensive profile is then made of the Shura Council. A final section presents recommendations, which include the following. The effectiveness of the People's Assembly could be enhanced through training of members, improved access to informa-

GENERAL DEVELOPMENT

tion, an institutionalized process for permitting members to present grievances from their constituency, and increased supervision of other branches of government. The Assembly's internal structure could be improved by trimming the administrative staff while strengthening research and analysis, improving committee staff capabilities, modernizing library facilities, and providing incentives for staff to complete computer and language training. Institutional strengthening could be effected through reexamination of the existing committee structure and increased use of hearings and fact-finding commissions.

007

PN-ABP-932
MF \$1.08/PC \$6.37

Guatemala: labor relations analysis — final report

Cook, Maria; Pieper, Paul B.; Terrell, Katherine
Interamerican Management Consulting Corp.
U.S. Agency for International Development. Bur. for
Latin America and the Caribbean. Guatemala (Sponsor)
May 1993, ii, 42 p. + 2 appendices, En
5200403; 5209999

While USAID has supported the expansion of Guatemala's private sector, particularly in the area of nontraditional exports, there is growing concern that this expansion may be occurring at the expense of workers' rights. In response, USAID/Guatemala is developing a Trade Policy and Labor Relations project that will address the two goals of increasing trade and improving labor relations. This study identifies activities which can be undertaken under the new project. Following an introduction, Section II analyzes the institutional and legal structure for labor relations in the country, focusing on the nontraditional agricultural and light manufacturing sectors. Discussion is given to worker organizations, the private sector, the Ministry of Labor (MOL), labor courts, and laws and regulations affecting labor relations. Section III identifies four major constraints to improved labor relations: lack of common objectives among organized labor, the private sector, and the MOL; frequent employer

disregard for labor legislation and government enforcement efforts; the Government's failure to uniformly enforce labor laws, as reflected in the low levels of funding and political support given to the MOL and the labor courts; and insufficient knowledge among labor unions and workers of political and economic changes affecting Guatemala. Section IV then specifies short- and medium-term activities that could be undertaken as part of the proposed project to improve labor-management relations. These include, in order of priority: activities in consensus building; firm-level training and TA; training and technical support for the MOL and its labor inspectors; and coordination with centrally funded USAID assistance to labor unions, e.g., that of the American Institute for Free Labor Development.

008

PN-ABP-986
MF \$3.24/PC \$31.46

Disaster history: significant data on major disasters worldwide, 1900-present

Labat - Anderson, Inc.
U.S. Agency for International Development. Bur. for
Food and Humanitarian Assistance. Ofc. of U.S.
Foreign Disaster Assistance (Sponsor)
Aug 1993, 231 p.: charts, statistical tables, En

This disaster history, produced by A.I.D.'s Office of Foreign Disaster Assistance (OFDA), provides information on major disasters around the world since 1900. All OFDA "declared" disasters — those in which the Chief of the U.S. Diplomatic Mission in the affected country determined that a U.S. government response was warranted — are included. Also included are significant "non-declared" disasters, with significance defined as: (1) earthquakes or volcanic eruptions in which at least 6 people are killed, or at least 25 killed and injured, or at least 1,000 people are affected, or damage is at least \$1 million; (2) weather disasters except drought, if the number of people killed and injured total at least 50, or 1,000 or more are homeless or affected, or damage is at least \$1 million; (3) drought

disasters, if the number affected is substantial; and (4) accidents, if the number of people killed and injured is at least 100, or damage is estimated at \$1 million or more. Small island countries are excepted from these criteria due to the relatively greater impact of disasters on their economies. Civil strife disasters are generally not included, unless the USG provided relief. Entries in the history are listed alphabetically by country and include information on disaster date and type, the number of victims (killed, affected, and rendered homeless), and the estimated cost of damage. The information is more complete on events since 1964 — the year OFDA was created — and is most complete on disasters to which OFDA, which is responsible for coordinating all USG foreign disaster relief, responded with assistance. The history does not include information on disasters within the United States and its territories, an area within the purview of the Federal Emergency Management Agency. (Author abstract, modified)

009

PN-ABP-997

MF \$1.08/PC \$8.97

Property law innovation in Latin America with recommendations

Hendrix, Steven E.

University of Wisconsin at Madison, Land Tenure Center
U.S. Agency for International Development, Bur. for
Research and Development, Ofc. of Economic and
Institutional Development (Sponsor)

U.S. Agency for International Development, Bur. for
Latin America and the Caribbean, Regional Develop-
ment Ofc. (Sponsor)

May 1993, viii, 65 p., En

LTC paper, no. 149

9365453

In most Latin American agrarian reform movements, governments restrict property size and the ability to mortgage, inherit, sell, and rent, and also mandate some form of land use (e.g., agriculture), all in order to prevent a reconsolidation of landholdings and the return of large

estates. Since 1990, Nicaragua, Peru, Mexico, and Honduras have passed new legislation to eliminate at least some of these restrictions. This study analyzes and compares these new laws and their impact on the historically disadvantaged, trade and investment, and the environment. The study suggests that the removal of restrictions on agrarian reform properties should be undertaken with care; preliminary evidence indicates the need to take account of the special needs of women, the poor, and indigenous groups, and to balance private sector needs against those of the historically disadvantaged and environmental policy.

Eliminating restrictions does not of itself guarantee economic progress, but must be integrated within a broader strategy of economic revitalization.

Further, eliminating restrictions does not of itself guarantee economic progress, but must be integrated within a broader strategy of economic revitalization. General guidelines for efforts to modernize property law are presented in conclusion. These are to: (1) remove restrictions on rights to mortgage; (2) rather than mandate specified form of tenure such as individual ownership, allow farmers to decide the legal form in which they wish to hold property; (3) consider establishing an unrestricted right to sell or transfer land; (4) consider recognizing forestry as an appropriate land use, in conformity with the social function of land; (5) explore the feasibility of giving mineral and subsoil rights to indigenous communities, where subsoil wealth is located on their land; and (6) identify areas for monitoring and evaluating the impact of legislative modernization, especially on the historically disadvantaged, trade and investment, and the environment.

010

PN-ABP-999
MF \$1.08/PC \$7.02

RESPONDACON II: second inter-American conference on the problems of fraud and corruption in government — broadcast via satellite from Miami, Florida; Buenos Aires, Argentina; Panama City, Panama with the participation of over 20 countries, February 27 - 28, 1992: final report

Price Waterhouse

Casals and Associates

U.S. Agency for International Development. Bur. for Latin America and the Caribbean. Ofc. of Democratic Initiatives (Sponsor)

1992, iv, 47 p., En

Spanish ed.: PN-ABQ-001

5980658

At RESPONDACON II, participants from 20 countries in Latin America and the Caribbean gathered at specially equipped viewing sites and were linked directly with

conference speakers and panelists in Miami to address the issues of fraud and corruption in government. The conference included presentations from the presidents of Peru, Argentina, and Nicaragua, as well as from investigators of the BCCI (International Bank of Credit and Commerce) scandal, members of the press, and other leaders. This report on the conference includes summaries of the formal presentations and closing remarks, as well as of activities in selected countries. The conference reached the following four general conclusions. (1) Corruption increases poverty and leads to economic stagnation and a reduction in government social spending. It also erodes public faith in democracy. (2) Corruption is becoming increasingly globalized, particularly in the financial system, and is made increasingly difficult to control by the use of sophisticated technology. (3) Corruption flourishes because it benefits politicians economically and electorally. (4) Both the legal profession, which is often corrupt itself, and society at large feel powerless to combat corruption. According to speaker Robert Klitgaard, the ways to combat corruption are to publicize it, give people positive incentives to fight it, establish sanctions for those who break the law and impose financial discipline within institutions by implementing internationally standardized auditing and control mechanisms, and encourage citizens to denounce it without having to reveal their identities.



Workers help clear a road of debris from an earthquake in the Azores.

011

PN-ABN-862
MF \$1.08/PC \$4.16

Women and democracy in Central America: how the local government regional outreach strategy (LOGROS) project can help to promote full and equal political participation for women

Van Pelt, Sharon

International City Management Association
U.S. Agency for International Development. Bur. for Latin America and the Caribbean. Regional Housing and Urban Development Ofc. Central America (Sponsor)

20 Nov 1992, 30 p., En
5960167; 9401008

Although the transition to democracy underway in Central America offers women a historic opportunity to increase their political participation, women continue to face political barriers arising from deeply ingrained cultural ideas, discriminatory laws and regulations, double demands on their time as income earners and mothers, lack of education, and poverty. A.I.D.'s planned Local Government Regional Outreach Strategy (LOGROS) project can assist here by educating local and national officials as well as citizens on the need to include women in the democratic process and by providing training and TA to women's organizations involved in the democracy movement. The project should call upon women's organizations for help in identifying the most suitable and effective ways to incorporate women and gender-related issues into LOGROS activities, and in advising mayors and municipal officials of the same. The easiest and perhaps most appropriate way of accomplishing this is by including women leaders, i.e., mayors, public officials, etc., and women's organizations in the Regional Municipal Network to be established during the project's first year. This initial effort is crucial to ensuring the incorporation of women into other LOGROS activities and, indeed, to successfully educating the members of the region's municipal systems of the importance of considering women and gender-related issues at the local and the national levels. (Author abstract, modified)

012

PN-ABP-107
MF \$1.08/PC \$9.49

United States assessment of gender considerations in A.I.D. evaluations in support of phase I of the DAC [Development Assistance Committee] WID [women in development] evaluation theme III: WID as a cross-cutting issue in development A.I.D. evaluation

Hageboeck, Molly; Synder, Monteze; et al.
Management Systems International, Inc.

U.S. Agency for International Development. Directorate for Policy. Center for Development Information and Evaluation. (Sponsor)

31 Mar 1993, v.p.: charts, statistical tables, En

The degree to which A.I.D. project and program evaluations discuss gender issues is assessed in this report, part of an effort by the multi-donor Development Assistance Committee (DAC) to incorporate gender concerns into development activities. The report examines 442 A.I.D. evaluations dated 1/89-3/92, subjecting 152 of these to in-depth analysis on a sectoral basis. Major findings are as follows. (1) While the proportion of A.I.D. evaluations that gather gender-disaggregated data is only 22%, the proportion that discuss gender issues is 50%. (2) The inclusion of gender issues in evaluation scopes of work increases the likelihood that evaluations will include women as team members, gather gender disaggregated data, and discuss gender issues. The explicit inclusion of women as project beneficiaries seems to have a similar effect. These two facts suggest that there are multiple, perhaps serial, causes that influence the quality of evaluations from a gender perspective. (3) Data from the 152 evaluations examined in-depth indicate that some projects are yielding positive results for women, although generalizations to A.I.D. as a whole are not possible due to the relatively small number of evaluations in each of the sectors examined (agriculture, health and nutrition, education and training, private enterprise, policy reform and public administration, population,

WOMEN IN DEVELOPMENT

water and sanitation, housing and social infrastructure, and PVO activities). A follow-up study will examine evaluations dated 4/92-3/93.

013

PN-ABP-161
MF \$1.08/PC \$5.59

Gender, women, and community wide resource management

Robinson, Lyn, comp.

U.S. Agency for International Development. Bur. for Africa. Ofc. of Southern African Affairs (Sponsor) (Regional Conference on Community Variables, 28 - 31 Jul 1992)

Jul 1992, [39] p.: ill., En
6900251

Aspects of women's potential role in the regional A.I.D.-funded Natural Resources Management Project in southern Africa are explored in this background paper for a regional project conference. The various sections of the paper: (1) explain the difference between sex, a physical characteristic, and gender, a culturally conditioned social role; (2) present two brief case studies — one of a successful project adaptation to gender concerns and one of a failure to address gender concerns; (3) discuss the importance of including women, who make up more than half the resource users and managers in southern Africa, in the A.I.D. project, as well as the advantages and disadvantages of different ways of doing so; (4) explore the tension between the concepts of gender and women in development; (5) and present materials on the participation of southern African women in forestry, fisheries, and wildlife activities, as well as a brochure from Malawi providing guidance to male extension workers in their efforts to transfer technology to female farmers.

014

PN-ABP-338
MF \$3.24/PC \$26.52

Gender and the commercialization of subsistence agriculture in Nepal

Paolisso, Michael; Regmi, Shibesh Chandra
International Center for Research on Women
New ERA

U.S. Agency for International Development. Bur. for Asia. Nepal (Sponsor)

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Women in Development (Sponsor)

Jul 1992, xv, 187 p.: statistical tables, En

The shift from subsistence to commercial agriculture can alter long-standing labor patterns, many of them based on gender. This study examines the impacts of USAID's vegetable, fruit, and cash (VFC) crop program in three communities in Nepal's Rapti Zone, with specific reference to agricultural practices, time allocations, household income and expenditures, and women's and children's nutritional status and morbidity. Principal findings are as follows. (1) VFC households differ notably from non-VFC households in terms of cropping patterns, labor use, income generation, and expenditure patterns, but not, apparently, in terms of nutrition and morbidity. These differences are to some degree long-standing, but are at least partially due to the VFC program. (2) As production of VFC crops increases, men devote less time to agricultural activities, while women devote more time; both spend less time cultivating maize, a subsistence crop. Men spend their extra free time predominantly in social or out-of-community activities, while women spend less time in child care, household work, and out-of-community activities. Ethnographic insights suggest, however, that women are not perceiving major conflicts between home production work and increased agricultural work. (3) Even taking into account differences in farm size and the greater time allocated to VFC crops, VFC households have much higher per capita incomes than non-VFC households, and higher expenditures. In two of the communities, the VFC program notably increased women's income as well as

their participation in decisions regarding income use. (4) VFC households hire more labor than non-VFC households, increasing local employment. The report includes recommendations.

015

***PN-ABP-468**
MF \$1.08/PC \$4.68

Gender in community development and resource management: an overview

Mehra, Rekha

International Center for Research on Women
World Wildlife Fund - U.S.

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Women in Development (Sponsor)

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Environment and
Natural Resources (Sponsor)

Mar 1993, iv, 30 p., En
9300300; 9365554

**Also available from: International Center for
Research on Women, 1717 Massachusetts Ave. NW,
Washington, DC 20036 USA*

The sustainability of natural resource conservation projects is often thwarted by a failure to recognize women's roles as primary resource managers. This paper outlines women's economic and environmental roles and the socio-economic, institutional, and policy/program constraints that exclude them from resource management initiatives. It also presents five brief case studies of successful initiatives in India, Kenya, Nepal, and the Philippines to involve women in resource management, along with the following lessons they teach. (1) Linking women's economic survival needs and environmental roles with conservation efforts enhances project sustainability. Demonstrating to women producers the extent to which their future livelihood depends on their present use of resources is especially important. (2) Projects should build upon women's traditional activities, then offer supplemental assistance and training as required. (3) Making small changes in agricul-

tural techniques is inexpensive and can substantially improve conservation productivity. (4) Conflicts between women's multiple responsibilities must be minimized to secure their participation in conservation activities. (5) Intermediary institutions can facilitate women's access to resources needed to increase productivity and enhance conservation. (6) Grassroots groups can mobilize poor women and enhance their bargaining power with agencies that have access to resources and political clout. (7) Incorporating women into conservation projects will require changes in project operations and tools; training materials will need to be rewritten, staff retrained, and training schedules made more flexible.

016

PN-ABP-792
MF \$1.08/PC \$6.63

Changes in the role of rural women under the household responsibility system: a case study of the impact of agrarian reform and rural industrialization in Dongyao village, Hebei Province, North China

Li, Zongmin

University of Wisconsin at Madison. Land Tenure
Center

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Environment and
Natural Resources (Sponsor)

Jun 1993, v, 53 p.: charts, maps, statistical tables, En
LTC research paper, no. 113
9365301

China's conversion in the early 1980's from a commune- to a household-based system of agricultural production has gradually strengthened women's role in the sector. This case study focuses on the effect that China's land reforms, and the accompanying trend toward rural industrialization, have had on the division of labor within the family. Data were collected from 23 households in Dongyao village in Yutian County in North China. Results show that the combined effect of the household responsibility system

WOMEN IN DEVELOPMENT

and rural industrialization is that women have gradually come to form the main labor force in agricultural production, and have begun doing work with which they were never previously associated.

The development of rural industry in North China has brought primarily men and unmarried women into the labor force, leaving married women to take care of family agriculture and, when no help is available from grandparents, to raise poultry and do household chores.

The development of rural industry has brought the recruitment of primarily men and unmarried women for a labor force, leaving married women to take care of family agriculture and, when no help is available from grandparents, to raise poultry and do household chores. Many tasks once done only by men (e.g., trading produce, building houses and walls) are now done also by women. While women clearly have more opportunities than they ever did before (as well as a heavier workload), there remain many restrictions imposed by traditional ideas and customs. For example, guiding the plow and sowing seeds are still not women's work, for many people believe that if women did these tasks, the crops would be poor. The report concludes with suggestions for developing community services to benefit women, meeting their educational needs, and improving their work opportunities and conditions.

017

PN-ABQ-016
MF \$1.08/PC \$5.72

Women who are making a difference in Swaziland

Jones, Carol Larson

California State Polytechnic University, Pomona. International Center

U.S. Agency for International Development. Bur. for Research and Development. Center for University Cooperation in Development (Sponsor)

U.S. Agency for International Development. Bur. for Africa. Swaziland (Sponsor)

Dec 1992, iii, 38 p., En
9365060

Women in Swaziland are breaking away from traditional roles that confined them to domestic activities and are becoming active participants and beneficiaries in the money economy despite persistent sociocultural constraints. This report profiles 30 Swazi women, aged 23-65, who have attained success either as professionals, small business operators, or technical educators. The profiles, based on personal interviews, present information on the women's demographic and educational background, professional training, business experience, and gender-related problems on the job. The interviews reveal that Swazi women: are less assertive than their American counterparts; constitute only 33% of formal sector employment and only 20% of the skilled labor force; and generally earn much less than men in comparable skill categories. To achieve career growth in a developing economy, the interviewees recommended that women: get a good education, avoid pregnancy until established in their careers, network and form groups, support one another, fight for their rights, create their own opportunities, and leave tradition behind.

018

PN-AAX-263
MF \$2.16/PC \$14.82

Export promotion in Indonesia

Benedict, Peter; Ryan, Joe; Bell, Charles
U.S. Agency for International Development. Directorate
for Policy. Center for Development Information and
Evaluation. Ofc. of Evaluation
Apr 1993, vii, 28 p. + attachment: charts, statistical
tables, En
A.I.D. technical report, no. 6
Attachment: XN-AAX-263-A
Summary highlights: PN-ABG-013
4970329

Recent economic studies suggest that countries with strong trade, investment, and export systems experience greater developmental growth than those with internally focused economies. This country study (part of a regional study of export and investment promotion in Asia) assesses the effectiveness of export and investment promotion services in Indonesia, and in particular A.I.D.'s \$10 million Private Sector Development Project, which struggled over a period of 7 years with various approaches to direct assistance for export and investment promotion. The report reflects the perspectives of both service providers and firms that benefitted from the services and reaches the following conclusions. (1) Policy reform was an important precondition to the development of an indigenous export capability; through the 1980's A.I.D. assistance in deregulation effected greater change in Indonesia's economic environment than did direct A.I.D. assistance to individual firms. (2) Government-subsidized export promotion programs, which included buyer contacts, trade fairs, and the provision of general market information, were most helpful at early stages of firm market entry (later stages required more technical and market sensitive expertise). Government-managed investment promotion had no impact. (3) For market assistance, the majority of firms rely on internal resources and on highly interrelated seller/buyer relationships, rather than on fee-based advisory services. The report is presented in three sections which cover the economic context, the export promotion services market, and the effectiveness of export promotion intermediaries.

019

PN-AAX-264
MF \$1.08/PC \$5.20

Can export services assistance make a difference? the Korean experience

Rock, Michael T.
U.S. Agency for International Development. Directorate
for Policy. Center for Development Information and
Evaluation.
Apr 1993, ix, 33 p., En
A.I.D. technical report , no. 7
Summary highlights: PN-ABG-010

During Korea's early export expansion period (1961-73), the Government of Korea (GOK) undertook a program to provide export services to manufacturers. To this end, the GOK created several joint public-private commodity-specific task forces to assist export businesses with production and marketing, as well as the Korean Trade Promotion Agency, a public sector agency to market exports, and the Korean Institute of Science and Technology, which was responsible for developing new industrial technologies. A.I.D. directly assisted these agencies and supplemented this support with highly targeted production assistance to firms and industries. This case study assesses the impact of these publicly provided export services on Korea's export performance. Individual sections of the report: outline the program's political and economic context; examine the market for export services; and review the use and impact of GOK export services. The study shows that the GOK's export services institutions had minimal impact on export expansion. It appears that foreign sources provided most of the production and marketing assistance to exporters, with lucrative export incentives facilitating cooperation between Korean exporters and aggressive foreign buyers. Four major lessons were learned from this experience. (1) Donors must carefully identify the rationale for intervening in export service markets. In the Korean case, no sound rationale existed. (2) The effectiveness of public sector provision of export services is open to question. (3) The importance of the export services provided by the international sector suggests that the proper role of the public sector may lie in facilitating long-term contacts between exporters and de-

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veloped country importers and suppliers. (4) Even if there is a rationale for subsidizing export services, public sector institutions should not be created to provide export services. Each of Korea's institutions experienced significant problems.

020

PN-AAX-276
MF \$1.08/PC \$6.37

Export promotion and investment in India

Fox, James; Pelay, Carlos; Brunner, Hans-Peter
U.S. Agency for International Development. Directorate
for Policy. Center for Development Information and
Evaluation. Ofc. of Evaluation
Nov 1993, viii, 30 p. + 2 appendices: charts, statistical
tables, En
A.I.D. technical report, no. 16
3860496

India's policy regime is highly anti-export, making difficult for firms to compete in world markets. Even so, as this case study shows, Indian entrepreneurs are ready to take advantage of any slight opening the Indian Government provides. Although not intended to promote exports, A.I.D.'s Program for the Advancement of Commercial Technology (PACT) project in India was highly successful in linking Indian firms with U.S. partners for commercially viable projects. PACT helped to promote the creation of a venture capital industry in India, and reinforced the competence of Indian entrepreneurs. The following lessons can be learned from the PACT experience. (1) Projects can have significant policy fallout when they demonstrate the benefits of better policy and indicate directions for such policy, as PACT did for indigenous research and development in India and for linkages to foreign firms. (2) The findings of Keesing (1992) and others are strongly confirmed: government export promotion activities are of limited or marginal value. It is possible to spend, as India does, large amounts of resources without significant impact. (3) Indian firms seem to misperceive the risks and rewards of exporting. Being in a protected environment, they are insufficiently aware of the potential for sharp

increases in productivity and profits from better technology and methods. (4) Close collaboration between foreign and domestic firms in a repressed economy like India's result in high payoffs, though only over time. (5) USAID/India should focus on the key problem of the massive waste of the country's scarce investment resources: India's capacity to save would allow annual growth of 9-10% per year. The challenge for USAID is to identify paths of economic liberalization, particularly in trade, that will help improve efficiency. (Author abstract, modified)

021

PN-AAX-277
MF \$1.08/PC \$6.63

Measuring costs and benefits of export promotion projects: findings from A.I.D. experience

Bremer, Jennifer; Bell, Charles
Robert R. Nathan Associates, Inc.
Louis Berger International, Inc. Development Economics Group
U.S. Agency for International Development. Directorate
for Policy. Center for Development Information and
Evaluation. Ofc. of Evaluation (Sponsor)
Dec 1993, viii, 29 p. + 3 appendices, En
A.I.D. technical report, no. 14

The measurement of benefits from export promotion programs raises difficult practical and technical issues. This paper explores methodologies for ex post impact analysis of export promotion projects. The paper discusses several types of benefits: direct benefits (foreign exchange earnings, employment generation, returns to local capital, value added); indirect benefits (e.g., new or stronger institutions to promote investment and exports and an improved policy environment for export-oriented investment); and externalities (benefits or costs, either to unassisted firms or to others, resulting from the project-related activities of assisted firms). The following conclusions are reached. (1) Rigorous cost-benefit analysis of promotion projects is extremely difficult to perform ex post. Substantial data are needed for such analysis (requiring an unjustifiably large expenditure of scarce evaluation resources),

and the reliability of the results is questionable. (2) More limited cost-benefit analysis based on data gathered in short field trips (as done for this report) provides only a rough estimate of the rate of return. (3) Where time and financial resources are limited, a rate of return calculation based on employment benefits may serve as a useful proxy for a more complete analysis. (4) Promotion projects can have significant indirect impacts, but measuring such impacts poses significant challenges. Learning from other firms, for example, has potentially large benefits. (5) Formal cost-benefit analysis is likely to be impracticable in most circumstances. Nevertheless, performance monitoring is essential in promotion projects. This paper identifies approaches to monitoring that can help separate effective approaches from ineffective ones. (Author abstract, modified)

022

PN-ABN-681

MF \$4.32/PC \$42.38

Economic recovery in The Gambia: lessons for Sub-Saharan Africa

McPherson, Malcolm F., ed.; Radelet, Steven C., ed.
 Harvard University. Harvard Institute for International Development
 U.S. Agency for International Development. Bur. for Private Enterprise. Ofc. of Small, Micro and Informal Enterprise (Sponsor)
 U.S. Agency for International Development. Bur. for Africa. Gambia (Sponsor)
 Sep 1992, 289 p. + appendix: statistical tables, En 9300095; 9400405

In mid-1985, The Gambia began one of the most comprehensive economic adjustment programs of any country in sub-Saharan Africa. By mid-1986, the Gambian economy had begun to turn around, and has continued to expand since. The lessons of the Gambian experience are an invaluable resource to other sub-Saharan countries. This volume, through 20 essays focused on specific topics, and/or sectors, explores the circumstances which led the Gambian government to adopt such a wide-ranging set of policy changes; the rationale for and impact of the policies;

the problems encountered as the policy changes were being implemented; the unanticipated adjustments made as the Gambia Economic Recovery Program (ERP) progressed; and additional actions needed to provide the basis for sustainable long-term growth. The essays address the following areas: the ERP; exchange rate reform; macroeconomic reform and agriculture; the groundnut sector; capacity improvement in the Ministry of Finance; parastatal reform, performance contracts and privatization; monetary policy, and financial reform; rural credit and savings; budget reform during the ERP; tax reform; customs reform; recurrent costs and the public expenditure program; external debt management; rationalizing domestic debt; donor support for the ERP; accounting for growth under the ERP; the politics of economic reform; the program for sustained development; and lessons from the ERP for Sub-Saharan Africa. (Author abstract, modified)

023

PN-ABN-685

MF \$1.08/PC \$11.57

Impact of export processing zones (EPZs) on labor in Latin America: with a focus on gender

Robbins, Donald
 Harvard University. Harvard Institute for International Development
 U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Women in Development (Sponsor)
 U.S. Agency for International Development. Bur. for Private Enterprise. Ofc. of Small, Micro and Informal Enterprise (Sponsor)
 Dec 1992, 58 p. + appendix, En 9300095; 9400405

The effect of export processing zones (EPZs) on labor markets (particularly women) in Costa Rica, the Dominican Republic, and Mexico is studied in this report. The study found the literature available on the subject to be incomplete and weak, but a number of consistencies and worthwhile observations emerged. The first section discusses the legal and regulatory framework of EPZs gener-

ally. Section II summarizes the literature on labor markets, particularly with regard to female employment. This section covers only the Dominican Republic and Mexico; study of the Costa Rican labor market had to be abandoned because virtually nothing is known about it. Section III discusses the policy literature, and Section IV discusses recommended studies. Appendices present tables summarizing the available data on labor market aspects of Latin American EPZs. The report concludes that firms do not locate in EPZs because they can avoid the labor laws for the rest of the domestic economy — labor laws within and without the EPZs are essentially identical. Rather, firms are attracted to Latin American EPZs principally because wages are low by international standards, and the EPZ allows firms to avoid tariff and non-tariff import barriers, and, perhaps, to avoid unionization. The literature surveyed endorses more infrastructure and services that would make it easier for women to work in EPZs. It found that Dominican EPZs employ women who are often married and with dependents to achieve higher stability. In contrast, women in the Mexican EPZs are young, unmarried, and with few children. The difference may be due to the larger role that women in the Dominican Republic play in supporting families. (Author abstract, modified)

024

PN-ABN-714
MF \$2.16/PC \$18.46

Andean and Caribbean Basin financing guide

U.S. Dept. of Commerce. International Trade Administration

U.S. Agency for International Development. Bur. for Latin America and the Caribbean (Sponsor)

Oct 1992, 146 p., En

Over 100 specific financing mechanisms designed to support private sector trade and investment in the Andean and Caribbean Basin are described in this guide. The mechanisms, which include donor development programs, development and investment banks, stock exchanges, development foundations, credit funds, and export rediscounting facilities, are categorized into bilateral, interna-

tional, regional, private, and country-specific sources. At the country level, the guide identifies sources in Bolivia, Colombia, Ecuador, and Peru for the Andean region, and sources in the Bahamas, Barbados, British Virgin Islands, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama for the Caribbean region. The guide provides potential investors and traders with critical information on these financing sources, including basic background, eligibility requirements, application procedures, and key contacts. Appendix I presents the financing sources in a series of matrices to allow companies to quickly identify sources for their specific interest.

025

PN-ABN-747
MF \$1.08/PC \$3.90

Depressed commodity prices: implications for Latin America's economic growth

Linden, Gary

U.S. Agency for International Development. Bur. for Latin America and the Caribbean

Feb 1993, 27 p.: charts, statistical tables, En

Staff working papers / U. S. Agency for International Development. Bureau for Latin America and the Caribbean, no. 6

An often overlooked factor in the economic downturn experienced in most major Latin America economies during the 1980's is the loss of export earnings which occurred due to dramatic declines in the prices of primary commodities. Lower export earnings during the period 1986-1990

Declining prices for primary commodities has led the region's export sector to shift away from the primary sector, though to different degrees for different countries.

translate to a reduction in the average annual rate of GDP growth of 0.48%-0.62%, depending on the assumptions used; data suggest that these reductions are even larger if

one extends the period to 1992. The first part of this study evaluates the export experience of Latin America as a whole during the 1980's. It considers three questions. First, to what extent did the region's export earnings suffer because of falling commodity prices? Second, facing low primary product prices, did the region's export sector turn increasingly to non-primary exports? Third, what were the economic growth implications of lower export revenues? The second part focuses analysis on four countries — Ecuador, El Salvador, Guatemala, and Jamaica — which offer a range of experiences that taken together provide a complete view of the implications of sharply lower commodity prices in the 1980's. According to the study, the declining prices for primary commodities has led the region's export sector to shift away from the primary sector, though to different degrees for different countries.

026

PN-ABN-797

MF \$1.08/PC \$12.09

Mongolia's private commercial banking potential: preliminary assessment

Downen, Thomas

Price Waterhouse. Ofc. of Government Services

U.S. Agency for International Development. Bur. for Private Enterprise. Ofc. of Emerging Markets (Sponsor)

U.S. Agency for International Development. Bur. for Asia. Mongolia (Sponsor)

11 Nov 1992, 8 p. + 5 appendices: statistical tables, En 9400014

Recent policy changes in Mongolia have opened the door for the development of private commercial banking, the potential for which is assessed in this report. The number of commercial banks has increased from 0 in 1990 to 10 at present, of which 4 are spin-offs of the old Central Bank. Most are joint stock companies and are still directly or indirectly government controlled through shareholder companies that are in process of privatization. The recently opened Central Asia Bank is the country's first truly private bank. Mongolia's Banking Law gives commercial banks broad powers, barring them only from insurance and

real estate transactions. Requirements for obtaining a banking license are relatively simple, and the law is silent on foreign bank ownership or branches. The key factor limiting the formation of new banks is a shortage of market-oriented and English language-skilled managers and staff. Economic and infrastructural underdevelopment, lack of a well defined legal and regulatory foundation, and persistent suspicion of renewed government interference are also major impediments. Western donors could help by providing technical assistance to: (1) establish a bankers' association to define professional operating procedures, organize training, clarify the regulatory environment, etc.; (2) develop international banking strategies and connections; and (3) develop strategic, long-, and short-term plans. The bulk of the report consists of appendices: a list of the banks visited; the text of laws governing economic entities, banking, privatization, taxation, foreign investment, and petroleum; the Central Bank's temporary charter; the charter of the Joint Stock Industrial Bank, a pioneer in privatization; and financial data, including the balance sheets of the commercial banks.

027

PN-ABP-171

MF \$1.08/PC \$11.96

Comparative review of the economic impact of selected infectious diseases in Africa

Aron, Joan L.; Davis, Paula

Johns Hopkins University. School of Hygiene and Public Health. Dept. of Population Dynamics

U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)

Feb 1993, viii, 84 p.: statistical tables, En ARTS technical paper, no. 2 6980483

The economic impacts of disease, which impedes economic activity both directly, by absorbing resources for treatment, and indirectly, through productivity losses due to morbidity and mortality, are an important consideration in establishing priorities for disease control. For example,

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a successful dracunculiasis (guinea worm disease) eradication program in a Nigerian village resulted in documented increases in trading opportunities, new construction, and school attendance. This report reviews studies which have examined the economic impact of five diseases — malaria, HIV/AIDS, onchocerciasis, dracunculiasis, and schistosomiasis — mainly, but not only, in African countries; it aims to both report on the economic impact of these diseases, and to compare methodologies for determining economic impacts of diseases. Analytical levels vary, from the national, regional, sub-regional, and household level. While all five diseases represent staggering burdens in economic (as well as other) terms, AIDS in particular represents a tremendous threat because of the high costs of treatment and loss of productive persons. An appendix gives short descriptions of all the studies reviewed: 15 malaria studies; 25 HIV/AIDS studies; 6 onchocerciasis studies; 7 dracunculiasis studies; 10 schistosomiasis studies; and 17 studies that addressed analysis of the economic impacts of disease in general.

028

***PN-ABP-179**
MF \$3.24/PC \$29.64

Economic policy and household welfare during crisis and adjustment in Tanzania

Sarris, Alexander H.; Brink, Rogier van den
Cornell University. New York State Colleges of Human Ecology & Agriculture & Life Sciences. Div. of Nutritional Sciences. Cornell Food & Nutrition Policy Program
University of Dar es Salaam. Bur. of Economic Research
U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)
[1993], xiv, 215 p.: charts, statistical tables, En
Published by: New York University Press
6980519

**Also available from: New York University Press, Washington Square, New York, NY 10003 USA*

This study assesses the impact of structural adjustment on household income in the country. Following an introduction, Chapter 2 overviews the structure of the economy. In Chapter 3, the authors examine macroeconomic developments and policies, and present an analysis of Tanzania's substantial informal sector, demonstrating in the process that official statistics have failed abysmally to reflect the whole story of the country's economy. Chapter 4, based on analysis of several household surveys, provides a detailed structural profile of households in Tanzania, showing a degree of poverty much larger than previously thought, but also a very equitable pattern of income distribution. Agriculture, the country's most important sector, is examined in Chapter 5; the analysis demonstrates that (contrary to official reports) food production has not increased over the past decade. Finally, Chapter 6 shows, again contrary to what is generally believed, that the rural and urban poor have hardly been affected by structural adjustment. The only groups that seem to have suffered real income decline are the rural middle income and richer households, and the urban rich. The policy implications of this are explored. Includes 7-page bibliography.

029

PN-ABP-191
MF \$1.08/PC \$5.07

Should principles of regulation and prudential supervision be different for microenterprise finance organizations?

Chaves, Rodrigo A.; Gonzalez-Vega, Claudio
Development Alternatives, Inc.
U.S. Agency for International Development. Bur. for Private Enterprise. Ofc. of Small, Micro and Informal Enterprise (Sponsor)
Apr 1993, v, 35 p., En
GEMINI working paper, no. 38
Related document: PN-ABM-578
9365448

The issue of whether microenterprise finance organizations should be subject to the general principles governing the regulation and prudential supervision of depository financial institutions is assessed. After defining the key

concepts involved, the report presents the general rationale for regulating depository financial institutions, namely, the negative results of unregulated, opportunistic behavior; consumer protection issues are emphasized. Next, the authors propose seven principles of regulation, including competitive neutrality, minimum cost, specific objectives, incentive compatibility, and flexibility. Instruments of prudential regulation are then described, including: the role of lender of last resort; deposit insurance; licensing; capital adequacy requirements; prohibition of loans to insiders; diversification rules; admissible activities; and enforcement powers. Preventive regulation is distinguished from protective regulation, and five principles of prudential supervision are proposed. Next, off-site and on-site methodologies for supervision are evaluated, and typical risks (e.g., credit defaults, fraud) are described. Risks unique to microenterprise finance organizations, such as subsidy dependence and donor intrusion, are also discussed. A final section notes that while microenterprise finance organizations share with depository institutions many of the characteristics that make regulation necessary, their institutional and legal variety make it impossible to provide absolute rules for their regulation. (Author abstract, modified)

030

PN-ABP-623

MF \$1.08/PC \$4.55

Economic crisis and recovery in El Salvador, 1978-1992

Zuvekas, Clarence, Jr.

U.S. Agency for International Development. Bur. for Latin America and the Caribbean

U.S. Agency for International Development. Bur. for Latin America and the Caribbean. El Salvador

Jun 1993, 33 p., En

Staff working papers / U.S. Agency for International Development, Bureau for Latin America and the Caribbean, no. 8

El Salvador's economy experienced moderately rapid economic growth during most of the 1970s. Real aggregate GDP rose at an average annual rate of 5.1% between 1969

and 1978, while real per capita GDP grew by 2.5% a year, roughly equal to the Central American average (2.6%) in the pre-crisis decade or so (rates for individual countries vary from 8-11 years). Per capita consumption, fueled toward the end of the period by a boom in coffee prices, rose by 3.5% a year. Meanwhile, political and social conditions in the country were deteriorating. The outbreak of civil war in the late 1970s triggered a sharp economic decline which began in the 1979 and was aggravated by the 1980-82 world recession. This paper begins by briefly tracing the dimensions of El Salvador's economic crisis; discussing the domestic and external factors that made the decline in per capita GDP the second most severe in the region (after Nicaragua's); and examining the policy measures adopted by Salvadoran governments in the early 1980s to overcome the crisis. A similar exercise is then carried out for the period of very slow economic recovery (virtual stagnation in real per capita GDP) between 1983 and 1989, and for the more rapid (but still moderate) recovery since then. Finally, concluding observations provide some comparisons between El Salvador and Nicaragua and highlight major obstacles to sustained economic recovery and social peace during the remainder of the 1990s. The paper argues that better economic policies since 1990 explain part, but by no means all, of the improvement in economic performance beginning in that year. It also maintains that El Salvador's economy emerged from civil war in a much healthier condition than that of Nicaragua, which suffered from an internal conflict of comparable destructiveness while receiving a similar amount of external economic assistance. (Author abstract)

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031

PN-ABP-625
MF \$1.08/PC \$7.67

Real wages, poverty and economic policy changes in South America and Mexico in the 1980s: a review of the evidence

Elliott, James A. M.

U.S. Agency for International Development. Bur. for Latin America and the Caribbean

Jun 1993, 19 p. + 4 annexes: charts, statistical tables, En

Staff working papers / U.S. Agency for International Development, Bureau for Latin American and the Caribbean, no. 10

Nearly all Latin American and Caribbean countries responded to the economic crisis of the 1980's by implementing structural adjustment and stabilization programs. This paper reviews the experiences of Mexico and ten South American countries (Bolivia, Chile, Colombia, Argentina, Paraguay, Uruguay, Peru, Ecuador, Brazil, and Venezuela) to see if any common patterns can be discerned. Section II examines the pace which different countries took toward adjustment, while Section III analyzes patterns in real wages, employment, and poverty levels. Labor force participation rates are discussed in Section IV and the relationship between real wages, exchange rates, and trade liberalization in Section V. Section VI assesses the effect of inflation on wages and unemployment and Section VII reviews impacts on poverty rates. The report concludes that the movement of real wages and unemployment in the 11 countries followed a fairly well-defined pattern. With the onset of economic crisis, real wages tended to fall and unemployment to increase, sometimes dramatically, as real per capita GDP turned negative or slowed. Failure to adjust promptly compounded these difficulties. Once effective programs of stabilization and comprehensive structural adjustment were enacted, economic growth resumed, real wages recovered, and unemployment declined, though sometimes only after several years. The paper concludes that since adjustment entails significant costs for wage workers, particularly the poor, it is important that countries adhere to sound macroeconomic

and trade policies, avoiding exchange rate overvaluation, excessive protectionism, and misallocation of scarce resources. At the same time, safety net programs may be needed to protect those near the poverty line or already below it.

032

PN-ABP-641
MF \$1.08/PC \$8.97

Designing for financial viability of microenterprise programs: tools for microenterprise programs — financial assistance section

Waterfield, Charles

Development Alternatives, Inc.

Mennonite Economic Development Associates

U.S. Agency for International Development. Bur. for Private Enterprise. Ofc. of Small, Micro and Informal Enterprise (Sponsor)

Mar 1993, vii, 46 p. + 2 appendices: statistical tables, En

9365448

Designing for financial self-sufficiency has become a key aspect of microenterprise development programs. This technical note presents a simple model for projecting the financial viability of a microenterprise credit program. The model is appropriate for initial program design, as well as for analyzing proposed shifts in program methodology, loan sizes and terms, and fee structures. Part one introduces the model, walking the reader through a series of tables to determine a program's income based on six variables: number of loans per month per fieldworker, effective loan term, average loan size, number of fieldworkers, annual interest rate, and commission rate. Another series of tables calculates expenses: personnel and administrative costs, cost of capital, bad debt reserve, and devaluation through inflation. Ratios of information from the income and expense tables are used to compute a program's level of solvency, operational self-sufficiency, and short- and long-term financial self-sufficiency. In part two, the model is applied to four programs to demonstrate how decisions on methodology influence costs, income, and thus, financial

self-sufficiency. Though the model has been purposefully simplified to make a computer unnecessary, the most useful results are obtained by using computerized spreadsheet to examine different variables. Also, the simplified model assumes that the program has only one principal loan methodology; appendices include suggestions for modifying the model for more complex situations.

033

***PN-ABP-765**
MF \$1.08/PC \$6.37

**Fall 1992 gateway seminar report —
defense conversion: achieving U.S.-
Russian cooperation for an orderly
build-down and economic renewal,
October 15-18, 1992**

Boston Consulting Group
U.S. Agency for International Development. New Independent States Task Force (Sponsor)
1992, 45 p.: ill., En
Related documents: PN-ABP-794 and PD-ABG-666
1100005
**Also available from: Geonomics Institute for International Economic Advancement, 14 Hillcrest Ave., Middlebury, VT 05753 USA*

In converting its vast defense establishment to peaceful and economic ends in the post-Cold War era, Russia will require cooperation and technical help from the West, particularly the United States. Such assistance is in the U.S. national interest both economically and politically. This report synthesizes the proceedings of a seminar, held in Fall 1992, at which senior officials from Russian ministries involved in defense conversion, U.S. Administration officials, defense conversion experts, Russian defense enterprise managers, and American business people, all acting as private citizens, gathered to discuss the issues involved and to develop recommendations for U.S.-Russian cooperation on defense conversion and economic renewal. The seminar's key output was the "Bread Loaf Charter", a brief, overarching statement of problems that need to be addressed and actions that need to be taken. The Charter calls for two specific actions: (1) to convene

experts from both sides to define principles of mutual security and agree upon actions to implement these principles in way that ensures defense conversion and economic renewal in Russia; and (2) organize a U.S.-Russian business working group to develop strategies to generate mutually beneficial trade and investment, especially strategies that will promote defense conversion. The report includes a commentary which expands on some of the Charter's key points, as well as the seminar's keynote address, a summary of seminar presentations, and the texts of three papers which examine more closely the obstacles and opportunities for U.S. businesses in Russian defense conversion.

034

PN-ABP-931
MF \$1.08/PC \$6.89

**Guatemala's trade policy reform:
analysis and recommendations**

Marks, Siegfried
Development Alternatives, Inc.
U.S. Agency for International Development. Bur. for Latin America and the Caribbean. Guatemala (Sponsor)
Jul 1992, ii, 53 p., En
5200403; 5209999

Reversing policies of import substitution and protection, Guatemala, jointly with the other four countries of the Central America Common Market (CACM), in 1986 began a program of trade liberalization and development of nontraditional exports. Since then, the CACM countries have made substantial progress in reducing external import tariffs, phasing out restrictive licensing, eliminating special exemptions from tariffs, and freeing intra-area trade from restrictions; even a common external tariff schedule has been proposed. Much less has been done, however, to improve the efficiency of customs administration, promote infrastructure in support of trade development, reform the exchange rate regime and other trade-related economic policies, and promote efficient investments to help the private sector survive and prosper under trade liberalization. Given Guatemala's commitments to

the CACM, the political influence of its private sector, and its desire to continue to protect some industries, Guatemala ought to adopt a two-phase approach to its ongoing trade policy reform. In the short-term, it should pursue two major policy changes that are both economically and politically viable: (1) adopt a two-tier tariff system specifying a 20% duty for some products to protect or stimulate specific local industries and a 5% duty for all other imports, including essential inputs for the protected industries; and (2) abolish the existing exchange control and adopt a Mexican-type, pre-announced stable rate of very small devaluations. In the medium-term, as the region moves toward broader free trade, Guatemala should seek a uniform tariff structure of about 10% for all imports, and, to strengthen the private sector's ability to compete as trade liberalization progresses, further reform the exchange rate system. The report also recommends a number of additional measures to improve Guatemala's economic outlook. These include improving the infrastructure (to attract additional foreign investment), broadening the local financial market, and supporting industrial modernization. (Author abstract, modified)

035

PN-ABP-949
MF \$1.08/PC \$4.16

Does the coca/cocaine industry offer good prospects for Bolivia?

Clawson, Patrick
Management Systems International, Inc.
U.S. Agency for International Development. Bur. for
Latin America and the Caribbean (Sponsor)
30 Dec 1992, 32 p., En
5980801

The coca/cocaine industry offers poor economic prospects for Bolivia in the 1990s, according to this essay, which develops the thesis in two ways. First, it demonstrates that the cocaine industry causes distortions that inflict harm on legal economic activity and on society at large. The profits come, at least in part, because the industry does not pay for the damage it causes. Furthermore, if the cocaine industry disappeared, legal businesses could expand to fill part if not all of the resulting economic vacuum. Second, the industry offers poor prospects in



Flowers for sale at a market in Guatemala.

comparison with legal economic activity. There is reason to believe that cocaine demand is not growing and that prices are dropping, while opportunities in mining, hydrocarbons, and tropical agriculture are excellent. Nor would the disappearance of cocaine cause a collapse of the Bolivian economy; between 1987 and 1991, cocaine income fell two-thirds while legal GDP rose from \$4.2 billion to \$5.3 billion. Resolving the cocaine problem will require more than interdiction and eradication, although these remain important in the short run; the key need is to create enough good paying jobs to make coca growing unattractive. This will require economic reform, an area in which Economic Support Funds can play a key role and which Bolivians themselves see as needed. Finally, since a paradoxical benefit of cocaine has been that Bolivia receives \$200 million a year in U.S. aid compared with the \$15 million it would get otherwise, USAID must make it clear that its aim is to work itself out of job in Bolivia by creating self-sustaining economic growth.

036

*PN-ABP-991
MF \$5.40/PC \$53.82

Growth mechanism of developing economies: investment, productivity and employment

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Institute for Contemporary Studies. International Center
for Economic Growth
International Development Center of Japan
U.S. Agency for International Development. Directorate
for Policy. Ofc. of Policy Analysis and Resources
(Sponsor)
1993, xxvii, 391 p.: statistical tables, En
9300092

*Also available from: *International Center for
Economic Growth, 243 Kearny St., San Francisco, CA
94108 USA*

The hypothesis is argued that the social capability to absorb knowledge — at the individual as well as the institutional and organizational levels — is the key determinant of how effectively a nation uses technology trans-

fers from more developed nations to increase production capacity and economic growth. To this end, the study compares the development histories of successful economies (Western countries and Japan) and those of developing nations in terms of productivity growth, employment, investment and technology, and price and trade structures. Residual growth methodology, as well as cross-sectional and time-series data, are employed in an effort to quantify the elusive term social capability. Findings suggest that the basic factors constraining development are not those conventionally assigned, e.g., shortage of capital, but rather a lack of mechanisms for upgrading social capability. The conclusion is that greater emphasis should be placed on improving a nation's social capability rather than focusing solely on increasing its productive capacity. Appendices provide further information on Japan's economic development and on sectoral aspects of residual growth.

037

*PN-ABQ-007
MF \$1.08/PC \$65

Exchange rate management in Ghana

Younger, Stephen D.
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tional Sciences. Cornell Food & Nutrition Policy
Program
U.S. Agency for International Development. Directorate
for Policy. Ofc. of Policy Analysis and Resources
(Sponsor)
U.S. Agency for International Development. Bur. for
Africa. Ofc. of Analysis, Research and Technical
Support (Sponsor)
U.S. Agency for International Development. Bur. for
Africa. Ghana (Sponsor)
Feb 1993, vi, 44 p.: charts, statistical tables, En
CFNPP [Cornell food and nutrition policy program]
working paper, no. 38
6980519; 9300095
*Also available from: *CFNPP Publications Dept., 308
Savage Hall, Cornell University, Ithaca, NY 14853
USA*

Ghana's history of exchange rate management is one of the most interesting and instructive in Africa. This paper explores the circumstances and impacts of past and present exchange rate policies, and analyzes the options currently facing Ghana. Shortly after independence in 1957 Ghana, like many African countries, adopted strict exchange controls which successive governments, with sporadic exceptions, pursued for the next two decades. Some of the more apparent impacts of such policies were chronic overvaluation of the Ghanaian Cedi, and the growth of a cumbersome bureaucracy to manage the complex tasks of granting import and export licenses and foreign exchange allocations. Over the long term, the overvaluation of the Cedi and its accompanying regulatory regime, while domestically popular, suppressed economic growth, culminating in near total economic collapse in the late 1970's. Reversal of these policies came from an unlikely quarter; after taking power in 1981, the Rawlings government initially followed statist economic policies, but in 1983, in a bid to attract Western donor assistance, began implementation of an Economic Reform Program (ERP) of which currency devaluation and exchange regime liberalization were an integral part. The ERP, though economically painful, succeeded in attracting donor assistance and stabilizing the economy; by 1992 the Cedi was, for most purposes, a convertible currency. According to the paper, Ghana is now in a position to consider the following long-term exchange rate policies: a floating rate; a fixed rate; or a hybrid of the two, i.e., a managed float or adjustable rate. Although it would require improving the analytical capabilities and resources of Ghanaian policymakers, the author favors the third option. Includes references.

038

*PN-ABQ-008

MF \$1.08/PC \$12.09

External shocks, policy reform and income distribution in Niger

Dorosh, Paul A.; Nssah, B. Essama

Cornell University. New York State Colleges of Human Ecology & Agriculture & Life Sciences. Div. of Nutritional Sciences. Cornell Food & Nutrition Policy Program

U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)

U.S. Agency for International Development. Bur. for Africa. Niger (Sponsor)

Mar 1993, iv, 82 p.: statistical tables, En

CFNPP [Cornell food and nutrition policy program] working paper, no. 40

6980519

**Also available from: CFNPP Publications Dept., 308 Savage Hall, Cornell University, Ithaca, NY 14853 USA*

During the 1980's, Niger suffered a prolonged economic crisis due to a fall in the world prices of its leading export, uranium; drought; and economic instability in its neighbor and trade partner, Nigeria. This study uses a computable general equilibrium (CGE) model of Niger's economy to perform five simulations — three of the actual events, and two of hypothetical policy responses — in an attempt to quantify their distributional impacts, especially upon the incomes of poorer households. (1) The decrease in foreign exchange earnings and capital inflow associated with the collapse in uranium prices, while hurting both rural and urban households, had its strongest impacts in the construction sector, and thus hurt urban wage earners more. (2) While, as might be expected, rural livestock producers were most hurt by the drought, the resulting decline in output reverberated throughout the economy, with strong negative impacts on rural households without cattle as well as urban households. (3) The appreciation of the real exchange rate between Niger's FCFA and Nigeria's Naira hurt rural households by raising the costs of and lowering demand for agricultural goods in the Nigerian market. (4)

A hypothetical 10% devaluation in the FCFA/Naira exchange rate would significantly lower Niger's trade deficit, reduce real output only slightly, and lower household incomes; however, the government was and is constrained in regard to this option by its membership in the West African Monetary Union. (5) A hypothetical 10% reduction in government spending would spur domestic savings and economic growth, but mainly at the expense of urban government workers, a politically powerful group. All the simulations point to the central and complex role of livestock in the Nigerien economy, as an investment good, intermediate input, source of export earnings, and consumer good. Although Niger's policy options will continue to be constrained by external and internal factors, models like that presented here are a basic step in adding distributional considerations to policy analysis.

039

PN-ABQ-085

MF \$2.16/PC \$18.33

Ecuador: investment climate comparison study

Nathan Associates, Inc.

U.S. Agency for International Development. Bur. for Latin America and the Caribbean. Ofc. of Trade and Investment

U.S. Agency for International Development. Bur. for Latin America and the Caribbean. Ecuador (Sponsor)
22 Oct 1993, 99 p. + 6 appendices, En
5980797

Why are foreigners investing in Chile, Colombia, and Costa Rica, but not in Ecuador? This study compares the foreign direct investment (FDI) regimes of the four countries in an effort to answer this question. It is found that while Ecuador has, at least on paper, recently enacted the most liberal FDI regime of the four countries, other factors combine to make it unattractive to investors. These factors include exchange rate volatility, a bloated public sector with high deficits, inflation, massive external debt, persistent government intervention in the economy, scarcity of private investment financing, an officious bureaucracy, an anti-entrepreneurial labor regime, and, with specific refer-

ence to FDI, property rights problems, bureaucratic violations of the law forbidding discrimination against foreigners, and poor intellectual property rights protection. In sum, investors lack confidence in Ecuador's economic stability and in the continuity of its policies. Recommendations are that Ecuador: (1) establish a "one-stop-shop" to coordinate FDI policy and promotion programs and provide related services; (2) develop an FDI promotion strategy; (3) establish a public-private FDI Promotion Commission addressing only FDI issues, as well as bilateral private sector groups to work with major investing nations; (4) enact a unified Foreign Investment code; (5) grant investment regime guarantees against changes in FDI "rules of the game;" (6) abolish remaining sectoral and geographic restrictions on FDI; (7) enact the Modernization Law initiative; (8) reform the bureaucracy and the labor regime; (9) complete its accession to the General Agreement on Tariffs and Trade; and (10) develop a tourism policy and privatize the tourist industry. A detailed treatment of basic FDI concepts is included among the appendices.

040

***PN-ABQ-238**

MF \$1.08/PC \$7.80

Small scale urban enterprises in Tanzania: results from a 1991 survey

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U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)

Jun 1993, vi, [53] p.: statistical tables, En
CFNPP [Cornell Food and Nutrition Policy Program]
working paper, no. 44

6980519

**Also available from: CFNPP Publications Dept., 308 Savage Hall, Cornell University, Ithaca, NY 14853 USA*

Although there has been a visible increase in small-scale urban enterprise activity in Tanzania since economic liberalization in 1986, little is known about the small enterprise sector's structure and performance. This paper presents the results of a 1991 survey of 556 small firms in Arusha, Mbeya, Dodoma, Mwanza, and Dar-es-Salaam — cities considered representative of the country's urban sector. Following an introduction, Section 2 describes the survey methodology. Section 3 outlines the major characteristics

Most small firms are individually or family owned and employ no more than two workers; they are generally quite profitable and willing to expand, although credit availability is a major constraint.

of enterprises and their owners while Section 4 describes the business environment within which small firms operate. Section 5 characterizes the workers employed by small enterprises in terms of familial relationship, sex, firm size, sector, region, and hourly wage patterns. An economic profile of Tanzanian small firms is presented in Section 6, while Section 7 discusses the effectiveness of government programs that support small firms. Section 8 presents firm owners' perceptions of economic prospects and of constraints to small firm expansion. Most small firms are individually or family owned and employ no more than two workers. There are more unskilled than skilled workers in the sector. Generally, the small enterprises are quite profitable and willing to expand, the major constraint being nonavailability of credit and working capital.

041

*PN-ABQ-239
MF \$1.08/PC \$11.05

Aid flows and policy reforms: a general equilibrium analysis of adjustment and the poor in The Gambia

Dorosh, Paul A.; Lundberg, Mattias K. A.
Cornell University. New York State Colleges of Human Ecology & Agriculture & Life Sciences. Div. of Nutritional Sciences. Cornell Food & Nutrition Policy Program
U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)
U.S. Agency for International Development. Bur. for Africa. Gambia (Sponsor)
Jun 1993, viii, [76] p.: charts, statistical tables, En CFNPP [Cornell Food and Nutrition Policy Program] working paper, no. 46
6980519
**Also available from: CFNPP Publications Dept., 308 Savage Hall, Cornell University, Ithaca, NY 14853 USA*

This study uses a computable general equilibrium (CGE) model to examine Gambia's structural adjustment program's effects on economic growth and income distribution. The study first describes the Gambian economy and discusses the country's experiences during the past decade of policy reform and structural adjustment. The Gambia CGE model is then described in detail. The study concludes that for the most part the improvements in income level and income distribution that occurred in The Gambia were the result of changes in exogenous factors and increased capital inflows, and not the direct results of policy reform. Several general lessons emerge. (1) Foreign aid inflows can help mitigate the negative effects of adjustment on the urban poor. (2) Reduced government expenditures will not necessarily benefit rural areas in the long run if private investment is not forthcoming. (3) In The Gambia, groundnut pricing policies have significant effects, with clear tradeoffs between urban and rural incomes. An appendix contains details concerning the social accounting matrix used in this study.

042

PN-ABN-458
MF \$2.16/PC \$14.30

Results of a nationwide survey on micro, small, and medium enterprises in Malawi

Daniels, Lisa; Ngwira, Austin
Development Alternatives, Inc.
Michigan State University
ACCION International
Opportunity International
Technoserve, Inc.
Management Systems International, Inc.
World Education, Inc.
U.S. Agency for International Development. Bur. for
Private Enterprise. Ofc. of Small, Micro and Informal
Enterprise (Sponsor)
U.S. Agency for International Development. Bur. for
Africa. Malawi (Sponsor)
Jan 1993, xi, 60 p. + 5 annexes: charts, statistical tables,
En
GEMINI technical report, no. 53
9365448

Results are presented of a 1992 survey of Malawi's micro, small, and medium enterprise (MSME) sector. The survey covered 10,792 enterprises and gathered data on enterprise magnitude, composition, and characteristics; growth patterns and constraints; reasons for enterprise closure; MSME activity in refugee camps; and women's role in MSMEs. Major findings are as follows. (1) Malawi's MSME sector comprises 570,000 enterprises employing 1 million people (about 20% of the adult population); two-thirds of these MSMEs account for at least 50% of family income. (2) The key industries in the sector are trade and manufacturing, which account, respectively, for 52% and 43% of all MSMEs. The predominance of trade is striking, compared with other countries in the region, where manufacturing typically is dominant. (3) Although MSME employment is growing annually at a rate of 10.5%, 75% of firms have remain unchanged, and 3% have contracted. Of the 23% that expanded (generally older and originally smaller firms), the average growth rate was 48%. Credit was not a factor in expansion. Employment also increased

through the creation of new firms, especially microenterprises: 97% of all MSMEs have 1-3 workers and more than 60% are one-person firms. (4) Constraints on MSMEs were identified as input and marketing problems and lack of working capital. Some 33% of proprietors claimed input problems as primary. (5) Women comprise 46% of all MSME proprietors — surprisingly low when compared to the 67-75% rates found in neighboring countries. Fewer female-owned MSMEs expanded than male-owned firms. However, those that did so had a higher growth rate, indicating the importance of female-owned MSMEs as a source of household income and employment in Malawi. (6) MSME characteristics in refugee camps are very similar to those elsewhere in the country.

043

PN-ABN-753
MF \$1.08/PC \$6.50

Africa private sector development

Wortman, Miles
Labat - Anderson, Inc.
U.S. Agency for International Development. Bur. for
Africa. Operations and New Initiatives Ofc. (Sponsor)
U.S. Agency for International Development. Bur. for
Africa. Ofc. of Market Development and Investment
(Sponsor)
U.S. Agency for International Development. Bur. for
Africa. Ofc. of Private Enterprise (Sponsor)
6 Oct 1992, 50 p., En
6980438

This document describes the experiences of USAID's Africa Bureau in supporting private sector development and the lessons — some general, some very specific — it has learned. These lessons are arranged under the following headings: economic reform; government-donor relationships; the investment environment; reform through trade; networking and organizations; privatization; finance, debt swaps, and venture investing; and microenterprise development. Following are a few of the lessons. (1) Reform without pain does not work; partial reforms may be more damaging than none at all. (2) The success of assistance must be more important to the local participants than

PRIVATE ENTERPRISE

to the donors. (3) Reforms often founder due to informal barriers to business (corruption, uncertainty). (4) The major constraints to trade growth are government policies and regulations, bureaucratic inefficiency and corruption, transport problems, and banking — not supply and demand. Traders are the backbone of African entrepreneurship, and liberal trade policy is the key to structural adjustment and the creation of an enabling environment. (5) Lack of sophisticated business networks is a key constraint; the African entrepreneur works in isolation. (6) Privatization is primarily a political decision and the handling of opposition central to its success. (7) Most of Africa lacks the prime conditions that usually attract and maintain capital: a sufficient rate of return and predictability. (8) As a response to government suppression of entrepreneurship, small enterprises have been forced to adopt a no-growth strategy to avoid unwanted intervention from the state.

044

PN-ABN-958

MF \$1.08/PC \$7.54

Structure and growth of microenterprises in Southern and Eastern Africa: evidence from recent surveys

Liedholm, Carl; Mead, Donald
Development Alternatives, Inc.
Michigan State University

U.S. Agency for International Development. Bur. for Private Enterprise. Ofc. of Small, Micro and Informal Enterprise (Sponsor)

U.S. Agency for International Development. Bur. for Africa. Ofc. of Eastern and Southern African Affairs (Sponsor)

Mar 1993, viii, 41 p. + annex: statistical tables, En GEMINI working paper, no. 36
9365448

The history and status of micro- and small-scale enterprise (MSE) development in southern and eastern Africa are illustrated through baseline surveys conducted in seven countries from 1990-92. This report summarizes the responses of over 43,000 MSEs throughout Botswana,

Lesotho, Malawi, Swaziland, Zimbabwe, South Africa, and Nairobi. Primary conclusions are as follows. (1) MSE employment in the region is quite extensive, concentrated in rural areas and in manufacturing (primarily in the textile, food, and wood products sectors). (2) Most MSEs consist of 1-5 persons who are usually proprietors and family members. (3) Women make up the majority of the MSE labor force. (4) Growth in employment among MSEs is high, although there are many variations across sectors and countries. Even though the majority of MSEs do not grow at all, those that do grow at impressively high rates. (5) One half of firms disappear within the third year of start-up; only half of these closures are due to bad business conditions — new opportunities, family health, and government intervention were cited as major causes of firm closure. (6) Business constraints most frequently mentioned involve finance and markets (notably, taxes and governmental regulations were not cited). Includes bibliography.

045

PN-ABN-959

MF \$2.16/PC \$19.89

Review of donor-funded projects in support of micro-and small-scale enterprises in West Africa: case studies

Grant, William
Development Alternatives, Inc.

U.S. Agency for International Development. Bur. for Private Enterprise. Ofc. of Small, Micro and Informal Enterprise (Sponsor)

U.S. Agency for International Development. Bur. for Africa. Regional Economic Development Services Ofc. West Africa (Sponsor)

Mar 1993, xii, 142 p.: statistical tables, En GEMINI technical report, no. 54b
9365448

Case studies are presented of 17 donor-supported efforts to develop a viable micro and small enterprise (MSE) sector in West Africa. The report covers projects in Senegal, Mali, Cameroon, Ghana, Niger, Guinea, and Togo, funded variously by USAID, the European Development Fund,

the World Bank, and the Canadian, French, Dutch, and Swiss governments. Nine of the projects seek to provide MSEs with access to credit, while eight provide innovative nonfinancial assistance. The credit projects are divided about evenly between those providing start-up capital and those providing working capital. Overall, however, the trend has been away from simply injecting money into MSEs and toward building sustainability into MSE financial service delivery systems; while this seems to have slowed the rate of enterprise creation, it will do more to foster long-term stability and growth. The eight innovative projects employ nontraditional approaches to MSE development; these projects concentrate on nonfinancial assistance, such as training and organizational development of MSE associations. Although the approaches vary widely, two common ingredients in successful efforts have been: identification of market-driven opportunities; and development of points of leverage from which to reach broad groups of clients.

046

PN-ABP-081

MF \$2.16/PC \$18.07

General private sector assessment

Borish, Michael S.; Goldstein, Ellen; Haslach, Robert D. Coopers and Lybrand

J.E. Austin Associates, Inc.

U.S. Agency for International Development. Bur. for Africa. Operations and New Initiatives Ofc. (Sponsor)

U.S. Agency for International Development. Bur. for Africa. Ivory Coast (Sponsor)

U.S. Agency for International Development. Bur. for Private Enterprise. Ofc. of Emerging Markets (Sponsor)

Mar 1993, 56 p. + 2 annexes: statistical tables, En

MAPS Cote d'Ivoire: private sector description, v. 1

V. 2: PN-ABP-082, v. 3: PN-ABP-083, v. 4: PN-ABP-573, v. 5: PN-ABP-574

940202803

Economic decline in Cote d'Ivoire has impelled USAID to complement public sector initiatives with those aimed at policy reform and the private sector. A five-volume Manual

for Action in the Private Sector (MAPS) was developed to prepare for USAID involvement in this area; the first of the volumes, an overview of the macroeconomic environment in which Cote d'Ivoire's private sector operates, is presented here. Besides profiling the structure and role of the private sector, the report attempts to shed light on the transition Cote d'Ivoire is currently undergoing during a period of weakened terms of trade for its primary exports and increased international competition across economic sectors. Individual sections discuss: (1) the country's economic performance, structure, and prospects; (2) the private sector, formal and informal; (3) demographics, labor, and employment; (4) economic policy, public finance, and privatization of public enterprises; (5) external trade and the balance of payments; (6) debt relief and foreign aid; (7) the financial sector; and (8) transportation and communications infrastructure. A final section contains provisional recommendations for USAID private sector strategies.

047

PN-ABP-336

MF \$1.08/PC \$6.89

Transformation lending: helping microenterprises become small businesses

Reed, Larry; Befus, David

Opportunity International Development Alternatives, Inc.

U.S. Agency for International Development. Bur. for Private Enterprise. Ofc. of Small, Micro and Informal Enterprise (Sponsor)

Apr 1993, vii, 39 p., En

GEMINI working paper, no. 37

9365448

This paper examines how small enterprise credit institutions can support the transformation of microenterprises into small enterprises. It first examines the needs of enterprises undergoing this transformation. These enterprises experience changes in markets, personnel, production, and source of supply. In addition, many of these enterprises face expanding needs for credit, often in amounts larger

and for terms longer than those provided by lending programs that provide only short-term working capital loans. Second, it reviews five lending institutions that provide loans, and in some cases training, to support microenterprise transformation, analyzing their program design, lending methodology, financial performance, and impact. Finally, the paper summarizes the key lessons that come out of this review and suggests areas where additional research could help credit institutions develop programs aimed at encouraging the growth and transformation of microenterprises. (Author abstract)

048

PN-ABP-681

MF \$2.16/PC \$19.24

Environmental market conditions and business opportunities in key Latin American countries

RCG / Hagler, Bailly, Inc.

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Energy and Infrastructure (Sponsor)

U.S. Agency for International Development. Bur. for Latin America and the Caribbean (Sponsor)

[1993], ii, 141 p.: charts, maps, statistical tables, En Business focus series
9365738

Environmental markets and U.S. business opportunities in six Latin American countries — Argentina, Brazil, Chile, Colombia, Mexico, and Venezuela — are reviewed in this report. Specific issues covered include environmental policy, the current and prospective environmental market, market opportunities and competition, and market entry strategies; a regional overview of these issues is included. According to the report, the environmental markets in this region, while modest compared with the United States, are substantial and likely to expand as additional environmental regulations are implemented. The three countries with the most developed regulatory programs — Mexico, Chile, and Brazil — will account for 90% of the region's environmental market in the near term. The most promising opportunities exist in high priority sectors such

as improving water pollution control in Mexico and Brazil, reducing air emissions from copper smelting in Chile, and reducing mobile source emissions in Mexico and Chile. Opportunities also exist in wastewater treatment in Argentina, particulate controls for power plants and industry in Colombia, and pollution control and waste management for the petroleum sector in Venezuela. U.S. companies should work with local partners through technology licensing, local manufacturing, joint venture, or local subsidiary arrangements. U.S. market access should be strengthened by the fact that most of the countries accept U.S. standards and many of their technical people were trained in the United States. On the negative side, U.S. firms will continue to face competition from Japanese and European suppliers, as well as from local companies in more advanced countries like Brazil and Mexico.

049

PN-ABP-682

MF \$1.25/PC \$9.36

Sources of finance for private power projects in Asia

Newendorp, Terry A.

Taylor-DeJongh, Inc.

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Energy and Infrastructure

Jan 1993, 67 p., En

9365738

There is substantial need for investment in power generation and transmission infrastructure in Asian economies, and governments in the region are increasingly open to private sector-led development in what was once considered public domain. At the same time, due to uncertainty in world financial markets, assembling a financing package for large projects through traditional sources, such as commercial banks, is more difficult than in the past. In response, creative but complex new methodologies are emerging which draw on a variety of institutions for funding and investment insurance—multilateral and bilateral development institutions, export credit agencies, evolving capital markets in host countries—to complement

traditional funding sources. This report identifies these institutions and describes their principal activities, application procedures, lending criteria, etc., and provides the names and addresses of contacts. Different sections list institutions that finance project feasibility studies, that finance actual project implementation, and that provide investment insurance and guarantees. The report includes a graphic model of a possible financing structure for private power projects.

050

PN-ABP-918

MF \$2.16/PC \$14.56

New competitiveness and new enterprises in Peru: small businesses in an internationalized economy

Zambrano, Fidel Castro; Kritz, Ernesto
Development Alternatives, Inc.

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Economic and
Institutional Development (Sponsor)

U.S. Agency for International Development. Bur. for
Private Enterprise. Ofc. of Small, Micro and Informal
Enterprise (Sponsor)

U.S. Agency for International Development. Bur. for
Latin America and the Caribbean. Peru (Sponsor)
Aug 1993, xiii, 87 p. + 3 annexes, En
GEMINI technical report, no. 61
9365448

Two studies funded by A.I.D. in 1990 found that a number of small and micro enterprises (SMEs) in Peru were able to quadruple their employment and increase their capital assets nine-fold during the 1980's despite the general sluggishness of the SME sector in that period. This study, conducted in 1992 of 51 successful small firms within Peru's shoe, sweater, garment, and metalworking industries, examines the reasons for this success. Chapters 1 and 2 discuss the study's methodology and analytical framework, while Chapter 3, the heart of the report, contrasts the successful and competitive SMEs with those that remain at the subsistence level in terms of management, production, marketing, and finance. Successful SMEs

were found to be those that exhibited a high rate of organized learning and growing participation in an international business culture. More specifically, successful firms were those that formulated clearly defined targets and persevered despite market flux, were driven by an active and entrepreneurial spirit, invested in new technologies, participated in interbusiness groups such as associations and trade fairs, maintained an international market perspective (primarily through trips abroad which often included training), and learned from larger firms, often mimicking their designs and innovations. Successful firms continued to target products to their clientele, careful to ensure maximum coverage with any given product, and were able to organize a diversified portfolio of suppliers (often on an international level). Careful cash-flow management, reinvestment, and use of open markets to decrease need for bank credit characterized the firms' approach to finance. Chapter 4 lists the success factors for each of the four industries studied, the main restrictions to growth, and the options for dealing with these restrictions, while Chapter 5 contains profiles of owners of the 51 study firms.

051

PN-ABQ-029

MF \$1.08/PC \$9.75

Privatization in Sri Lanka: the experience during the early years of implementation

Kelegama, Saman

Sri Lanka Economic Association

U.S. Agency for International Development. Bur. for
Asia. Sri Lanka (Sponsor)

Mar 1993, 70 p., En

SLEA [Sri Lanka Economic Association] - USAID
publication series, phase I, no. 4
3830085

Sri Lanka's program to privatize public enterprises began full-scale in 1987. In industry, 21 enterprises had been fully privatized by 9/92, with another 40 scheduled for divestiture by the end of 1993; in agriculture, management of the large plantations has been privatized; and in the

PRIVATE ENTERPRISE

service sector, bus transport has been privatized. Rumors that the banking sector might be privatized have proven unfounded; so far, the government has indicated only that the state banks will be managed along more commercial lines. This paper examines Sri Lanka's experience with privatization, and the problems encountered along the way. The first two sections discuss the program's goals and background. Section three, the heart of the report, details the problems encountered in the privatization process — conflicts in privatization planning, lack of institutional leadership, political corruption, capital market constraints, inefficient management, trade union resistance, and lack of a regulatory framework and competitive environment.

Section four provides a tentative estimate of the program's success in meeting its four main objectives. In regard to two of these — improving management and production efficiency, and promoting modernization and foreign technology transfer — results are positive. The objective of relieving the state of the financial burden of subsidizing inefficient enterprises has so far been overshadowed by the short-term costs of privatization (e.g., settlement of liabilities, worker compensation, and debt restructuring). In regard to the fourth objective, promoting widespread share ownership in privatized enterprises, achievements have not been satisfactory. Policy options are discussed in conclusion.



Farmers cart away a wagon load of rice for drying.

052

PN-ABN-639
MF \$2.16/PC \$13.39

Annotated bibliography on agricultural credit and rural savings, volume XV: a special issue on women and finance in developing countries — final draft

Ohio State University. Dept. of Agricultural Economics and Rural Sociology. Agricultural Finance Program
Pennsylvania State University at Erie. The Behrend College. School of Business
U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Economic and Institutional Development (Sponsor)
Feb 1993, 99 p., En
9365315

In 1992, Ohio State University reviewed the literature on women and financial services (savings, credit, and general banking activities) in developing countries. This annotated bibliography, the product of OSU's review, comprises 257 citations (each with an abstract), listed alphabetically by author or institution. Due to the relatively recent focus on the role of gender in development, the majority of the literature cited is from the 1980's and 1990's. Most citations were published in the United States, although citations from Europe, Africa, Asia, and Latin America are included.

053

PN-ABP-176
MF \$1.08/PC \$9.49

Constraints on rice production in Madagascar: the farmer's perspective

Bernier, Rene; Dorosh, Paul A.
Cornell University. New York State Colleges of Human Ecology & Agriculture & Life Sciences. Div. of Nutritional Sciences. Cornell Food & Nutrition Policy Program
U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)
Feb 1993, viii, [64] p.: statistical tables, En
CFNPP [Cornell food and nutrition policy program] working paper, no. 34
6980519

Despite market liberalization and other policy reforms introduced in Madagascar's rice sector during the 1980's, rice production has not increased significantly. To shed light on this issue, a survey of rice farmers was conducted in 1990, focusing on economic incentives, production trends, and farmer perceptions. Results show that although some rice marketing problems remain following the liberalization, other constraints on rice production are paramount. Of these, land constraints are the most important, especially for small farmers on the East Coast and Plateau, making fertilizer use crucial. Unfortunately, yield-response to fertilizer on irrigated land has been somewhat low for many farmers. Off the Plateau, many small farmers do not consider lack of fertilizer inputs (or the resources to buy them) a major constraint, and fertilizer use is low. It is concluded that more efforts in research and extension are needed to develop and disseminate technologies suited for various rice ecologies. Investments in irrigation rehabilitation may also be needed in some cases. In sum, while marketing reforms were an important first step in increasing rice production in Madagascar, the remaining agroeconomic constraints cannot be ignored if the country is to maintain or increase per capita rice production in the coming decades. (Author abstract, modified)

054

PN-ABP-335
MF \$3.24/PC \$28.73

Agricultural trade policy reform program: design of an environmental monitoring system

Hecht, Joy; Karch, G. Edward; et al.
Chemonics International Consulting Div.
U.S. Agency for International Development. Bur. for
Africa. Chad (Sponsor)
10 Jun 1993, v.p.: maps, En
6770068; 9365517

USAID's Agricultural Trade Policy Reform Program (ATPRP) in Chad is designed to increase the efficiency of Chad's agricultural marketing system by encouraging tariff and regulatory reforms and helping traders and farmers take advantage of resulting opportunities. This report identifies ways in which the program may affect the environment, e.g., by introducing chemical fertilizers and pesticides, degrading vegetation, polluting critical water sources such as Lake Chad, and increasing deforestation. The report then considers five strategies for monitoring or mitigating these effects: (1) conventional ecological monitoring (which would identify environmental changes, but would not link them directly to ATPRP reforms); (2) targeted monitoring of villages and farmers most likely to be affected (which would address the causal link but would not show the full magnitude of the impacts); (3) focusing resources on mitigating environmental harms without attempting to monitor them; (4) dividing the monitoring effort into three independent, simultaneous steps, each corresponding to a causal link between ATPRP reforms and the environment; and (5) multi-step monitoring as in the previous suggestion, but extended over 10-15 years. The paper recommends the fourth strategy, preferring it to the fifth because of time constraints. A final section discusses issues pertinent to implementing the monitoring effort, e.g., what data should be collected and what are the staffing requirements. Five annexes consider in greater detail the implications of the ATPRP for specific elements of the environment: agronomy and soils; rangeland; forests; water; and wildlife.

055

PN-ABP-564
MF \$2.16/PC \$25.09

Maize research impact in Africa: the obscured revolution

Gilbert, Elon; Phillips, Lucie C.; et al.
U.S. Dept. of Agriculture. Ofc. of International Cooperation and Development
U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)
Jun 1993, ix, [185] p.: charts, maps, statistical tables, En
Summary report: PN-ABM-345

Among the few bright spots in sub-Saharan Africa's economic development since the 1960's has been maize production, which has increased an average of 2.6% annually over the past 25 years. This study explores the extent to which donor-supported national agricultural research centers (NARS) have contributed to this success. The study simulates two "what if" scenarios. In the first, it is assumed that, without research, increases in area devoted to maize cultivation would have taken place, but yields would have remained constant. In the second, yields are assumed to have declined due to pests, diseases, and declining soil fertility; according to this pessimistic, but not unrealistic scenario, research accounted for annual improvements in maize production, from 1986 to 1990, of 5.1 to 10 million MT, and in coarse grain production of 3.8 to 6.7 million MT. Case studies of Kenya, Malawi, Nigeria, Senegal, and Zaire, along with subregional analyses, explore both the changes associated with the adoption of innovations by farmers in different subregions of Africa, and the differences in impacts at the national, district, and farm family levels. Results strongly indicate that maize research has increased the productivity of land and labor across a range of farming systems. However, in nearly all case study countries, major progress in maize technology is traceable to the work of specific individuals, rather than to institutional development of the NARS—where performance levels appear to be worse now than they were in the past. The study concludes that we should reassess approaches to strengthening NARS, giving special attention to improving their performance in the face of adversity.

056

PN-ABP-567
MF \$1.08/PC \$12.22

European market and Near East agricultural exports: trends, trade barriers, and competition

Newman, Mark D.; Erbacher, Christine; Fung, Annie
Abt Associates, Inc.

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Agriculture
(Sponsor)

U.S. Agency for International Development. Bur. for
Near East. Ofc. of Development Resources (Sponsor)

Mar 1993, x, 62 p. + 3 appendices: charts, statistical
tables, En

APAP [agricultural policy analysis project, phase] II
collaborative research report, no. 349

Related document: PN-ABP-859

9364084

The newly created European Single Market holds potential opportunity for Near East agricultural export growth. This report presents a preliminary assessment of the potential for such exports in Egypt, Jordan, Morocco, and Tunisia. Chapter 2 provides an overview of the commodity composition and market destinations of agricultural exports from each of the four countries. A.I.D. priorities in agriculture and agribusiness support in each country are also reviewed. Chapter 3 addresses commodity- and product-specific trade of vegetables, fruit, ocean products, olive products, and other specialty products. Areas covered include trends in European imports, seasonal variation, and preliminary findings on competition and trade barriers. The assessment concludes that special agreements, including market access quotas and tariff reductions, as well as potential shifts in the tariff treatment of external countries, will be an important determinant of market potential for Near East exporters. A second phase of the study (PN-ABP-859) will examine these issues, as well as the potential impact of Europe's single market on regulations affecting market access, transportation, packaging, financial arrangements, and health and safety requirements. Data on European Community agricultural imports for 1986-90 are appended.

057

*** PN-ABP-577**
MF \$4.32/PC \$45.50

Bias against agriculture: trade and macroeconomic policies in developing countries

Bautista, Romeo M., ed.; Valdes, Alberto, ed.

Institute for Contemporary Studies. International Center
for Economic Growth

International Food Policy Research Institute

U.S. Agency for International Development. Directorate
for Policy. Ofc. of Policy Analysis and Resources
(Sponsor)

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Agriculture
(Sponsor)

1993, xxii, [240] p.: charts, statistical tables, En

Published by: ICS Press

9300092; 936411114

**Also available from: International Center for
Economic Growth, 243 Kearny St., San Francisco, CA
94108 USA*

There is a growing awareness that the pro-industrialist macroeconomic and trade policies adopted by developing countries since the early 1950's contain a hidden, but operative bias against agriculture. A compilation of recent studies on this subject is presented in this volume. First, an introductory section discusses how exchange rate, monetary, import substitution, tariff, industrial protection, and other policies, by introducing price biases against agricultural goods, reduce incentives to invest in agriculture. Section II presents studies of the effects of such policies on agriculture in eight countries: Peru, Colombia, Nigeria, Zaire, Philippines, Pakistan, Argentina, and Chile. The three regional studies in Section III analyze the cumulative effects of trade and macroeconomic policies on agriculture in Asia, Latin America, and Africa, while the two studies in Section IV examine, respectively, (1) the effects of specific policies on agricultural price stabilization, and (2) how public awareness of potential policy impacts can influence the policy process. A summary reflection by the editors notes that the empirical research indicates a two-fold bias against agriculture: (1) in the export sector, a bias

AGRICULTURE

for manufactured products and against agricultural products; and (2) within agriculture, a bias for food crops and against export crops. Some steps which governments can take to achieve a more neutral stance are discussed in conclusion. Includes 15-page bibliography.

058

***PN-ABP-626**
MF \$1.08/PC \$3.12

Agricultural productivity, sustainability, and fertilizer use

Parish, Dennis H.
International Fertilizer Development Center
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Agriculture
(Sponsor)
May 1993, 21 p.: charts, statistical tables, En
IFDC [International Fertilizer Development Center]
paper series, no. P-18
9310054
**Also available from: International Fertilizer
Development Center, P.O. Box 2040, Muscle Shoals,
AL 35662 USA*

Despite its possible detrimental effects on the environment, fertilizer remains indispensable to sustainable agricultural production, according to this report. Part one of the report defines terms that are frequently used in current debates over whether or not to use fertilizer (defined for the purposes of this article as commercial industrial fertilizer). It then goes on to review the reasons for fertilizer use, discussing the relative scarcity of the earth's fertile land resources, the interaction of fertilizers with the basic components of soil productivity, problems involved in sustaining soil fertility, the evolution of fertilizer use, and the relationship between fertilizer use and crop production. It is concluded that the elimination or even the reduction of fertilizer use in developing countries would result not only in the starvation and malnutrition of millions, but also in the increased degradation of the environment through deforestation, soil erosion, and desertification. Part two of the report presents 14 information briefs covering the need for fertilizers, equity issues, and technical aspects of ferti-

zation. Some of the briefs show the value of fertilizers, while others illustrate problems associated with their production and use. The technical briefs discuss fertilizer relationships with, inter alia, soil organic matter, soil erosion, plant nutrient recycling, recovery of fertilizer nutrients, soil acidity, biological nitrogen fixation, soil-borne diseases, pollution of surface and groundwater, and production of greenhouse gases.

059

PN-ABP-634
MF \$2.16/PC \$14.95

Structural reforms and the need for a strategic basic food reserve in El Salvador

Hugo, Cornelius; Neils, Kenneth E.
Kansas State University. Food and Feed Grains Institute
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Agriculture
(Sponsor)
U.S. Agency for International Development. Bur. for
Latin America and the Caribbean. El Salvador (Sponsor)
Jul 1993, 112 p.: charts, statistical tables, En
Postharvest grain systems R&D technical assistance
report, no. 135
9364144; 5190349

In 1989, the Government of El Salvador abandoned the buffer stock-price stabilization program for basic grains and edible beans it had established in 1953 in favor of a strategic food reserve scheme. The continued viability of this strategic reserve as a food security mechanism for the country is examined in this report. After a brief review of the original buffer stock-market intervention program and the shift to the strategic reserve program, the report describes the latter's policies and management in detail, covering purchasing, selling, storing, and total costs. The report then compares El Salvador's strategic reserve program with the classical concept of a strategic reserve as practiced in other countries, and examines the need for the program in the light of current structural reforms and market development trends. Conclusions are as follows.

(1) The strategic reserve program is too costly, in terms of both social and actual costs for the level of benefits (insurance coverage) provided. (2) With structural reform, national food security can be achieved through a well-informed private sector, a government that facilitates and regulates the market, and government-private sector coordination to ensure food security during catastrophe. (3) In El Salvador, where the import replacement time can be less than one month, existing on-farm and industrial stocks are more than sufficient to alleviate deficiencies caused by temporary market failure. Short- and long-term options for privatizing the reserve are presented in conclusion.

060

*PN-ABP-636
MF \$1.08/PC \$5.46

Strengthening farmer participation through groups: experiences and lessons from Botswana

Heinrich, Geoffrey M.

International Service for National Agricultural Research
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Agriculture
(Sponsor)

U.S. Agency for International Development. Bur. for
Africa. Botswana (Sponsor)

Jun 1993, xii, 32 p.: statistical tables, En
Special series on the organization and management of
on-farm client-oriented research (OFCOR)-discussion
paper, no. 3

936411113

**Also available from: International Service for
National Agricultural Research, P.O. Box 93375, 2509
AJ, The Hague, The Netherlands*

The need for farmers to participate more directly in agricultural technology development is becoming widely accepted, particularly in environments that are diverse, complex, and risk-prone. This paper presents the experience of a research program in Botswana's Francistown Region which has worked with farmer groups for the past 7 years. Topics include: the need for farmer participation, the effectiveness of farmer groups, the magnitude of and

output from this activity, the benefits obtained, and issues that arose during the development of the method. Farmers participated in the program through research-oriented groups which provided a forum for the joint design, testing, and evaluation of a wide range of technology options by both researchers and farmers. Over 120 farmers from three

Though the farmer groups were only part of the total regional research program, they contributed to many benefits, including expanded research capacity, increased research efficiency, and stronger links between on-farm research and farmers.

villages implemented up to 140 trials annually, involving up to 14 different technology options. Farmers' problems and evaluations of technology options were discussed at monthly meetings and quantified in an end-of-season survey. Simultaneously, researchers evaluated the technical performance of these innovations at diverse sites across the region. Though the groups were only part of the total regional research program, they contributed to many benefits, including expanded research capacity, increased research efficiency, and stronger links between on-farm research and farmers. Farmers' interest in the group activities was evident from the rapid early growth of the groups and sustained participation over the years. The group approach has recently been adopted by Botswana's extension service at the pilot program level. Farmer participation has had an impact on the direction of the research program and the relevance of research output. Program experience indicates that it is possible to develop effective, cost-efficient methods for farmer participation in the technology development process within a national agricultural research system. (Author abstract, modified)

061

***PN-ABP-642**
MF \$2.16/PC \$14.04

Economic incentives and comparative advantage in Indonesian food crop production

Gonzales, Leonardo A.; Kasryno, Faisal; et al.
International Food Policy Research Institute
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Agriculture
(Sponsor)

1993, 106 p.: charts, statistical tables, En
Research report / International Food Policy Research
Institute (IFPRI), no. 93
936411114

**Also available from: International Food Policy
Research Institute, 1200 17th St. NW, Washington, DC
20036-3009 USA*

Indonesia is an example of a country where policy successes in rice production, combined with other domestic and world economic developments, have led the government to consider agricultural diversification policies. To suggest directions for diversification, this study assesses policy and production trends for five major food crops (rice, corn, soybeans, sugar, and cassava) during the 1970-1988 period; analyzes the effects of input-output pricing policies on production incentives for these crops; and assesses the crops' relative comparative advantages under three trade regimes (import substitutes, interregional trade, and export promotion). The study finds that rice has comparative advantage as an import substitute but not as an export crop due to poor quality and a thin world market. Corn is the most efficient import substitute, and could become competitive as an export crop if superior varieties are developed. Soybean and sugar production are inefficient, while cassava production meets neither domestic nor export demand. On the policy side, Indonesia's highly successful policies to promote agricultural development became increasingly costly by the mid-1980's, particularly output price supports and input subsidies. Although price supports and subsidies are being phased out for rice and corn, some economically inefficient crops continue to receive support in order to encourage crop

diversity. A better diversification strategy, it is argued, would be to make producer incentives crop-neutral and linked to border prices, while continuing research investments, expanding extension, and improving rural infrastructure.

062

***PN-ABP-699**
MF \$2.16/PC \$15.73

Grasshoppers and locusts: the plague of the Sahel

Panos Institute
U.S. Agency for International Development. Bur. for
Africa. Ofc. of Technical Resources (Sponsor)
1993, 114 p.: ill., En
6980517

**Also available from: Panos Institute, 9 White Lion St.,
London N1 9PD, United Kingdom*

In 1988, after a long period of apparent quiescence, swarms of Desert Locusts swept across the Sahel and nearby areas, covering at one point 43 countries, or one-fifth of the earth's surface. While the dramatic nature of locust plagues generally prompts massive emergency measures, unfortunately these are usually not followed by equally large scale efforts to prevent future plagues. This monograph addresses means of preventing locust plagues, as well as approaches to mitigating damage from the Sahel's other major crop pest, grasshoppers (which are just as damaging as locusts, but less amenable to prevention). Chapters one through three offer an overview of past approaches to pest control (using the flawed handling of the 1986-88 plague as an example); the nature of Sahelian farming systems; and the breeding behaviors and destructive patterns of grasshoppers and locusts. Chapters four through seven review other issues related to pest control, including data collection and communication techniques (the use of satellites to detect breeding grounds and short-wave radio to quickly disseminate information hold the greatest potential); use of chemical pesticides; and coordination (or lack thereof) among regional, national, and donor organizations, and NGOs. A final chapter stresses the need for consistent funding of prevention efforts, a

search for long-term solutions, and improved institutional coordination; it suggests that a combination of control methods (e.g., chemical and biological pesticides, use of village brigades) is best. Numerous references.

063

PN-ABP-785
MF \$1.08/PC \$2.60

Final report: biocontrol of bean ashy stem blight by improved rhizobium biotechnology

Schroder, Eduardo; Echavez-Badel, Rodrigo;
Velazquez, Yovanny A.
University of Puerto Rico at San Juan
Dominican Republic. Secretariat of State for Agriculture
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Research (Sponsor)
[1993], [20] p.: charts, En
AID/SCI no. 8.158
9365542

USAID's Science Advisor recently completed a research project in the Dominican Republic and Puerto Rico to develop bacterial-based methods to control fungal diseases, primarily Ashy Stem Blight (*Macrophomina phaseolina*) in common bean (*Phaseolus vulgaris*). In the Dominican Republic, the disease was detected only in the San Juan de la Maguana province. Two fungal isolates from there were characterized and compared to one isolate from Sabana, Puerto Rico. A collection of 35 *Rhizobium phaseoli* strains were obtained and tested for fungal inhibition. Neither these nor other strains from the collection were capable of inhibiting the fungal pathogen sufficiently to be considered potential biocontrol agents. However, other bacterial genera (*Pseudomonas* and *Bacillus*) produced strong *in vitro* inhibition in a new media compatible with both bacterial and fungal growth. *In vivo* screening highlighted the potential of some strains as plant growth promoting rhizobacteria (PGPR) inoculum. Greenhouse experiments demonstrated the value of *P. cepacia* strain UPR 5C as a biofungicide against *M. phaseolina*. Personnel from Colombia and the Dominican Republic, in par-

ticular, received training and in some cases M.S. degrees while working for the project. Although the results obtained during the project indicate the potential of some bacterial strains as biofungicidal agents, further research is needed before the present technology could be commercially applied.

064

PN-ABP-786
MF \$1.08/PC \$3.12

Final report covering period: 31 August 1982 to August 30, 1992 — exploiting unique germplasm resources of leguminous trees: *Prosopis*, *Leucaena*, and *Acacia*

Felker, Peter; Russell, Edd
Food for the Hungry International
Baptist Haiti Mission
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Research (Sponsor)
[1992], 23 p.: ill., charts, statistical tables, En
AID/SCI no. 2.E-02
9365542

In Haiti, and other semiarid regions of the world, the need for fuelwood and forage is critical. This report summarizes research conducted over a ten year period on developing replicable plantations of leguminous trees in semiarid lands, especially in areas near seawater salinity levels. Research included greenhouse and laboratory work followed by field trials in Haiti and focused on two species: *Prosopis* and *Leucaena*. (*Acacia* is mentioned in the report's title but not in the report itself.) Results were as follows. (1) Greenhouse experiments identified leaf diagnostic criteria indicating mineral nutrient deficiencies in field trees. It also established the importance of micronutrients, especially zinc, in permitting growth in high pH (9.0) soils. (2) A most interesting discovery was the identification of *Prosopis* seedlots capable of growing at 3.2% sodium chloride, which is equivalent to seawater, indicating a potential for seawater irrigation of nitrogen fixing *Prosopis* along coastal deserts. (3) Tissue culture work was success-

ful with *Leucaena* but not with *Prosopis*. (4) A country-wide collection of *Prosopis* germplasm in Haiti was made and then compared in field trials with *Leucaena* and *Prosopis* from the United States, Argentina, Chile, and Peru. Several elite species for use in Haiti were identified, and a solar-powered mist system was developed for their asexual propagation. Unfortunately, transfer of the genetic materials developed under the project is severely hampered by lack of a dissemination mechanism and, more basically, by a wide lack of appreciation for the problems facing semiarid lands.

065

*PN-ABP-796
MF \$1.08/PC \$5.07

Linking crop models with a geographic information system to assist decisionmaking: a prototype for the Indian semiarid tropics

Singh, U.; Brink, J. E.; et al.

International Fertilizer Development Center
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Agriculture
(Sponsor)

Jun 1993, 39 p.: charts, maps, statistical tables, En
IFDC [International Fertilizer Development Center]
paper series, no. P-19
9310054

*Also available from: *International Fertilizer
Development Center, P.O. Box 2040, Muscle Shoals,
AL 35662 USA*

The optimization of fertilization strategies, given the uncertainties of climate, is generally difficult, and the problem is compounded in many developing regions of the world where key fertilizer-related data are sparse. Where adequate climatic, soil, and crop data exist, simulation models allow some extrapolation into these less developed areas and thus provide some insights into fertilizer behavior in different environments. Even where adequate data exist, simulation models are generally run in a mode that renders the results specific to one site. Input data can be changed to investigate crop responses to different manage-

ment regimes at other sites, but decisionmakers often need information that relates to a whole region, where there may be a wide mix of soil types and weather conditions. In addition, this information needs to be presented in such a way that nonspecialists can readily pick out the important conclusions. One way in which such information can be produced is through coupling crop simulation models with a Geographic Information System (GIS), a data base and analysis system that contains the spatial data needed to run the models and that maps model outputs of interest to decisionmakers. This document outlines the need for crop model geographic information systems, the possible uses of such systems, and the methods required in their construction. It also describes, as an example, a study investigating nitrogen fertilizer efficiency in Maharashtra State in the Indian semiarid tropics, using a simulation model of the development, growth, and yield of sorghum coupled with a GIS. The spatial data bases of the GIS contain information on soils, weather, and other inputs needed by the sorghum model, and the system allows regional analyses of model output to be performed and maps to be drawn. There are substantial limitations in the example, and the results should be treated with caution, but the main objective of this document is to demonstrate the power and utility of the approach. A crop model GIS could be used in a number of ways: (1) to act as a store of information on farming systems that can be updated to produce timely statistics of current land use patterns and production levels and how they are changing over time; (2) as a short-term policy tool, in relation to forecasting for the coming year or the current season, where regional simulations of yield and resource use would give an estimate of requirements for imports of agricultural inputs and exports of commodities, aid requirements in response to a bad season, or likely international loan requirements; and (3) as a long-term policy tool, to investigate the effects on regional production and resource requirements of economic, technological, or climatic change, or of substantial policy or trade changes to the economic environment within which farmers operate. (Author abstract)

066

PN-ABP-859
MF \$1.08/PC \$12.48

Europe's single market: implications for agricultural exporters from North Africa and the Near East

Newman, Mark D.; Abbott, Richard; et al.
Abt Associates, Inc.

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Agriculture
(Sponsor)

Jul 1993, vii, 83 p.: charts, statistical tables, En
APAP II [agricultural policy analysis project, phase II]
collaborative research report, no. 350

Related document: PN-ABP-567
9364084

The creation of the European Single Market on January 1, 1993, offers vast new market opportunities to agribusiness exporters from the Near East countries of Egypt, Jordan, Morocco, and Tunisia. This report examines regulatory changes taking place within the European Community (EC) and their potential effects on Near East agricultural exports. Following an introduction, Chapter 2 provides a statistical overview of Near East agricultural exports to the EC and examines changes in EC policy towards the Mediterranean and negotiations with former Eastern Bloc countries to enlarge the EC. Chapter 3 addresses regulatory and policy issues, covering EC decisionmaking, trade barriers, health and safety standards, packaging, transport, banking and financial services, and quality standards. Chapter 4 presents commodity-specific market trends and issues in the Single Market, focusing on fresh produce, processed foods, seafood, and cut flowers; U.S. trade issues are also addressed. Chapter 5 concludes that Near East exporters can be extremely competitive under the European Single Market, but this will require new investments in processing, packaging, and transportation technology, as well as management and marketing expertise. Near East agribusiness can be expected to look to outside sources of technology and know-how, presenting opportunities for U.S. firms to develop joint ventures or other arrangements with Near East exporters. Recommendations for USAID and other donors are presented in conclusion.

067

PN-ABP-920
MF \$3.24/PC \$34.45

CTTA [Communication for technology transfer in agriculture project]: a method for transferring technology to farmers —planning and implementation guide

Mata, Jose I.

Academy for Educational Development, Inc.

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Education (Spon-
sor)

1992, xvi, 259 p., En

Spanish ed.: PN-ABP-921
9365826

Communication for Technology Transfer in Agriculture (CTTA) is an innovative method for agricultural technology transfer that (1) focuses on the users of the technology — farmers; (2) requires the coordination of research, extension, and communications programs; and (3) highlights the use of communications media in technology transfer. This manual describes the CTTA process in an effort to encourage its use and promote understanding of the role of the behavioral sciences in agricultural and rural development. The manual consists of two parts. The first, in eight chapters, provides a conceptual framework for the CTTA methodology and describes each of the steps involved. These are: researching and interpreting the reality of the farmer; testing and adapting technologies to creatively eliminate obstacles; opening communication channels for technology transfer; preparing and testing communications media and materials; implementing the communication strategy at the right time in the production cycle; evaluating the transfer; and establishing and sustaining the CTTA methodology in an institution. Part two presents social research techniques for conducting an assessment, baseline research, and evaluations. Also included in part two is a case study of a CTTA project in Peru.

068

PN-ABQ-107
MF \$1.08/PC \$8.45

European market for processed mango

Mooney, Timothy J.

Abt Associates, Inc.

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Economic and Institutional Development (Sponsor)

U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)

U.S. Agency for International Development. Bur. for Africa. Regional Economic Development Services Ofc. West and Central Africa (Sponsor)

Sep 1993, vi, 33 p. + 5 appendices: charts, statistical tables, En

9365447

West African countries regularly produce more mangoes than can be consumed locally, and while some are exported fresh to Europe, many are wasted. This study analyzes the European market for processed mango products — juices, concentrates, pulps, chutney, dried mango, and others — to determine whether it would be in the interest of West African producers to invest in plants, equipment, and market development to export such products. Findings are as follows. The 12 European Community (EC) countries import 10,000-15,000 MT of processed mango annually, with the beverage segment of the market accounting for 60-70% of this. Germany, France, the Netherlands, and the United Kingdom are the four largest consumers of fruit products; the major suppliers of processed mango are Brazil, Colombia, Guatemala, and Peru. Although there is a supply glut, processed mango is still more costly than other processed tropical fruits. Marketing of processed mango is complicated, and EC firms tend to rely upon a few suppliers with whom they have established relationships. Given the above, it will be difficult for West African producers to penetrate the EC market. However, as signatories of the Lome Convention they have some competitive advantages, such as the right to export to the EC duty free. In addition, West African suppliers with ready access to port facilities have a trans-

portation advantage. They will need to be able to talk authoritatively about their products, and might begin by taking samples to EC trade shows. The focus should be on potential new products that do not require high capital investment; the market potential of sun dried mango slices, which could be sold as a premium, all-natural product, should be studied. A.I.D. should focus on assisting firms with existing processing capability, rather than creating new firms. The identification of varieties most suited for the different segments of the EC market is an important first step on the road to developing a competitive West African processed mango industry.

069

PN-ABQ-109
MF \$1.08/PC \$9.49

Constraints in the Kenyan fruit juice processing industry: final report

Wenner, Mark D.; Escudero, William

Abt Associates, Inc.

Agribusiness Association of Kenya

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Economic and Institutional Development (Sponsor)

U.S. Agency for International Development. Bur. for Africa. Kenya (Sponsor)

Sep 1993, iv, 67 p.: charts, statistical tables, En
9365447

In order to identify problems facing Kenya's fruit juice industry, this study catalogued the economic, institutional, infrastructural, and technological constraints as perceived by fruit juice processors and fruit growers. For fruit processors, the main impediments to expanded business activity and increased investments were (1) the rapid escalation in the cost of packaging materials; (2) the weak economic climate characterized by stagnant growth, falling real incomes, and sharp currency devaluations; and (3) problems with raw material availability. For fruit growers, the main obstacles to expansion and increased productivity were (1) the sharp rise in chemical input prices; (2) the lack of access to formal credit; and (3) poor horticultural extension services. Technically, the chief problems en-

countered were poor grading and sorting techniques, which result in inconsistent product quality. Principal recommendations call for a program of technical assistance aimed at improving fruit procurement, processing plant efficiency, and quality control; the undertaking of a feasibility study on contract farming as a means to solve the availability of raw materials problem; the establishment of an effective market information system, preferably operated by a private entity; and the strengthening of the Agribusiness Association of Kenya so that it can become an effective intermediary between the Government of Kenya, the donor community, and affiliated industries. (Author abstract)

070

PN-ABQ-156

MF \$2.16/PC \$17.16

AGMARIS manual: a guide to designing, installing, and monitoring a site-specific, provincial AGMARIS in the Philippines

Guyton, Bill; Menegay, Merle; et al.
Abt Associates, Inc.

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Agriculture
(Sponsor)

U.S. Agency for International Development. Bur. for
Asia. Philippines (Sponsor)
2nd ed.

15 Jan 1993, vi, 124 p., En
9365447

Lack of information has seriously hampered market development efforts in the Philippines. This guide to the installation of a provincial-level Agricultural Marketing Information System (AGMARIS) is the product of experience gained under a joint Agricultural Marketing Improvement project between USAID and the Philippine Bureau of Agricultural Statistics. Central to the AGMARIS is a systematic approach for assessing and responding to the market information needs of farmers and traders at the provincial level and Philippine policymakers at both national and local levels. Farmers producing perishable com-

modities such as fruits and vegetables would be the main beneficiaries of such a system. Before installing an AGMARIS in a given province, a Marketing and Information Needs Assessment (MINA) is conducted to investigate the marketing system of each priority commodity and determine the information needs of each type of market participant; this includes examining the flow of agricultural commodities from the farm level to terminal market centers. Based on the MINA, a site-specific AGMARIS is then tailored to local conditions and information needs. Preparing and installing the AGMARIS involves eight principal steps that require 2-3 months to complete, and are followed by two further steps: troubleshooting and monitoring. Attachments to this manual explain ways to conduct reconnaissances under different situations and describe in detail the assessment approaches applied to Market Centers and Trading Centers. (Author abstract, modified)

071

PN-ABQ-235

MF \$1.08/PC \$7.54

Food sector instability and food aid in sub-Saharan Africa: implications for food security

Kangasniemi, Jaakko; Staatz, John M.; et al.
Michigan State University

U.S. Agency for International Development. Bur. for
Africa. Ofc. of Analysis, Research and Technical
Support (Sponsor)

Nov 1993, xii, 49 p.: charts, En
ARTS technical paper, no. 10

This paper examines the relation between food sector instability and food insecurity and outlines ways in which food aid can be used to alleviate the situation. Chapter 2 examines how food price instability disproportionately affects the poor, while Chapter 3 examines aspects of food sector instability, emphasizing the effects of poor market integration across location (in-country or abroad), time, and products; the role of nonfarm income in helping people to cope with instability is also assessed. Chapter 4 discusses indicators to measure food sector instability, as well

as to guide the use and evaluate the effectiveness of food aid. Chapter 5 then examines at length how food aid can be used to mitigate transitory food insecurity, e.g., by supporting price stabilization, providing food transfers to those most in need, supporting stabilizing investments in agricultural research or rural infrastructure, providing public works employment, and supporting policy reform. Conclusions are offered in Chapter 6: (1) The use of food aid to support policy changes and public goods is more cost-effective in the long run than is direct food aid. Donors should use political leverage to promote policy reforms that reduce food sector instability. (2) Price stabilization goals should not be too ambitious: extremely high prices are worth preventing, but some seasonal price fluctuation is reasonable. (3) By careful advance planning, emergency food aid can be expeditiously incorporated into public works programs. (4) The main road to food security is poverty alleviation, which requires broad-based rural development. Includes references.

072

PN-ABN-746

MF \$1.08/PC \$2.47

Final report covering period September 1988-December 1992: screening of new *B. thuringiensis* strains for integrated pest management in Costa Rica

Hofstein, Raphael; Fuentes, Gilbert

Ecogen Israel Partnership

University of Costa Rica

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Research (Sponsor)

1993, [17] p.: statistical tables, En

AID/SCI no. C8-100

9365544

A 4-year collaborative biological insecticide development program to improve strains of *Bacillus thuringiensis* (a naturally occurring bacterium) was undertaken from 9/88-12/92 by Ecogen Israel Partnership (EIP), Inc. in Jerusalem, Israel, and a team of scientists at the University

of San Jose, Costa Rica. Ecological hazards due to use of chemicals, particularly pesticides, have made the search for biological replacements a global decree. In response, a variety of biopesticides have been proposed. The two research teams involved in this program sought to develop a whole family of cost-effective Bt-based products. Efforts were focused on three major pests of vegetable crops, and primarily on old-world bollworm (*Heliothis armigera*), Egyptian leafworm (*Spodoptera littoralis*), and diamond-back moth (*Plutella xylostella*), which are devastating pests of cruciferous and solaneous vegetables. At the outset it was clear that in order to attain cost-effective pest control it is possible to use naturally occurring Bt strains that are isolated from different niches in the environment. However, such isolates required significant improvements before they could be turned into commercial products. Within four years the program resulted in the isolation of three highly potent Bt strains, each against one of the above mentioned pests. This was followed by intense research using sophisticated techniques in molecular biology. The naturally occurring strains were manipulated so as to enhance the expression of toxin plasmid genes as well as broaden the pest spectrum. The main accomplishments of the project were the identification of useful Bt-based biopesticides, their improvement by genetic manipulation, and the targeting of those strains towards major pests that in the future will have to be controlled by biorational means. The close collaboration between the two teams will create the foundation for highly qualified research in Costa Rica where scientists are eager to make progress in such a prominent area. (Author abstract)

073

PN-ABP-323
MF \$2.16/PC \$18.59

Weed research in Sri Lanka: an annotated bibliography

Gunaseena, H. P. M.
University of Peradeniya. Faculty of Agriculture
Sri Lanka. Ministry of Agricultural Development and
Research (Sponsor)
U.S. Agency for International Development. Bur. for
Asia. Sri Lanka (Sponsor)
1992, 123 p., En
3830058

The first of its kind compiled in Sri Lanka, this annotated bibliography assembles information from the numerous studies on specific weed species and weed management methods that have been conducted in the country's annual and perennial crop sectors during the past several years. Surveys in lowland rice fields have identified about 120 weed species belonging to 32 families, and there are estimates that weeds reduce crop yields by about 25% to 30%, while weed control accounts for nearly one-third of production costs. Due to the extent of this problem, a thorough knowledge of previous research is essential for designing future weed management programs. Citations include research publications on general aspects of weed control, weed control in various crops (rice, upland crops, tea, rubber, and coconut), biological weed control, herbicides, and special weed problems, each with a full abstract. Includes author and subject indexes.

074

PN-ABN-450
MF \$2.16/PC \$20.54

On-farm research and technology for dual-purpose goats

Semenye, Patterson P., ed.; Hutchcroft, Theodore, ed.
University of California, Berkeley. Management Entity
Kenya Agricultural Research Institute
Kenya. Ministry of Agriculture and Livestock Develop-
ment (Sponsor)
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Agriculture
(Sponsor)
1992, xvi, 144 p.: ill., charts, statistical tables, En
9311328

Dual purpose goats can increase productivity in small farming systems: they can convert unused crop residues to milk and meat, providing a small but year round supply of milk protein, and producing one or two kids a year, which can be either eaten or sold for cash income. This manual, designed primarily for extension workers, reports recommendations developed in densely populated, medium- to high-potential agricultural areas of western Kenya. The opening chapters describe the agricultural development of western Kenya, the specific setting for smallholder agriculture, and on-farm research methodologies. Succeeding chapters describe: breeding strategies for genetic improvement, methods for developing and using forages, nutrition and goat production management, the treatment of common health problems, and the economic impact of adding dual purpose goats to a farm. A final chapter on farmers' acceptance of the goat technology introduced in western Kenya concludes that goat production is most popular in the highlands, where higher rainfall and acute population pressure favor intensified agriculture rather than in the lowlands, where the average farm is twice as large and rainfall only half much. This suggests the need for a dual technology package for dual purpose goat production.

AGRICULTURE

075

*PN-ABP-607

MF \$1.08/PC \$10.66

Impact of livestock pricing policies on meat and milk output in selected sub-Saharan African countries

Williams, T. O.

International Livestock Centre for Africa

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Agriculture
(Sponsor)

Mar 1993, vii, 79 p.: charts, statistical tables, En
ILCA research report, no. 20

French ed.: PN-ABP-608

Earlier English ed.: PN-ABH-156

936411109

**Also available from: International Livestock Centre
for Africa, P.O. Box 5689, Addis Ababa, Ethiopia*

Livestock pricing policies in developing countries are often instituted without consideration of the effects they might have on allocative efficiency, output, trade, and consumption. This paper evaluates, in a comparative cross-country context, the objectives and instruments of livestock pricing policy in Cote d'Ivoire, Mali, Nigeria, Sudan, and Zimbabwe during the period from 1970-86. It examines the extent to which pricing policy objectives have been attained and estimates the effects of price interventions on output, consumption, trade, and government revenues in order to draw out lessons for the future. The empirical results indicate that in comparison with real border prices, a certain degree of success has been achieved in stabilizing real domestic producer prices in the study countries. However, consumers still appear to gain as much as producers in three of the study countries, with negative consequences for foreign exchange earnings and government revenues. The analysis reveals the importance of domestic inflation and exchange rates as key variables for livestock pricing policies and highlights the need to address the macro-economic imbalances that cause exchange rate distortions and high domestic inflation at the same time that direct price distortions are being tackled. (Author abstract)

076

*PN-ABN-612

MF \$1.08/PC \$7.15

Biology and culture of pearl oysters (bivalvia: Pteriidae)

Gervis, M. H.; Sims, N. A.

Great Britain. Overseas Development Administration
International Center for Living Aquatic Resources Man-
agement

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Agriculture
(Sponsor)

1992, v, 49 p.: ill., statistical tables, En

ICLARM studies and reviews, no. 21

ICLARM contribution no. 837

9364111

**Also available from: International Center for Living
Aquatic Resources Management, MC P.O. Box 1501
Makati, 1299 Metro Manila, Philippines*

Pearl oysters are farmed throughout the Indo-Pacific region, where they present significant economic potential for coastal communities. This study reviews information on the biology and culture of four pearl oyster species: *Pinctada fucata*, *P. maxima*, *P. margaritifera*, and *Pteria penguin*. Individual sections cover: (1) taxonomy and distribution; (2) ecology and biology, including anatomy, environmental factors, food and feeding, reproduction, growth, and mortality; (3) culture, including hatchery culture, breeding, spat collection, nursery rearing, ongrowing systems, and pearl culture; and (4) the marketing and economics of cultured pearls, pearl shell, and pearl oyster meat. The report concludes that pearl oyster cultivation and pearl culture are developing rapidly throughout the Pacific Islands, but there is potential for geographic expansion of pearl culture and for improved management and marketing within the industry. Priority research needs are to: (1) redefine hatchery techniques for *P. maxima* and *P. margaritifera*; (2) perform assessment surveys in areas where stocks are marginal or heavily exploited; (3) develop spat collection techniques for *P. maxima*; and (4) conduct disease control studies. Efforts in the Pacific Islands should focus on: refining farming and extension systems; increasing the availability of seeding techniques

through collaborative training programs; increasing communication between researchers and pearl farmers; and defining marketing strategies.

077

***PN-ABN-613**
MF \$1.08/PC \$7.15

Socioeconomic impact and farmers' assessment of Nile tilapia (*Oreochromis niloticus*) culture in Bangladesh

Gupta, Modadugu V.; Ahmed, Mahfuzuddin; et al.
International Center for Living Aquatic Resources Management

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Agriculture (Sponsor)

1992, iv, 50 p.: ill., statistical tables, En

ICLARM technical reports, no. 35

ICLARM contribution no. 805

9364111

**Also available from: International Center for Living Aquatic Resources Management, MC P.O. Box 1501 Makati, 1299 Metro Manila, Philippines*

Bangladesh has a large number of unused or underused seasonal bodies of water — ponds, ditches, roadside canals, and borrow pits — which could be used for farming tilapia. This socioeconomic study, conducted in Mymensingh, Bangladesh, found that ponds of 169 sq. meters yielded an average 23.6 kg of fish, an amount equivalent to the national annual consumption of a six-member, low-income rural household. Of the total yield, 70% was consumed by the families themselves, improving their nutritional status. Revenue from 28% of the fish and fingerlings sold was enough to meet operational costs, demonstrating the sustainability of tilapia culture, while a 343% return on investment verified its economic viability (many farmers indicated that profits were enough to cover educational costs for their children). Moreover, the tilapia culture technology is simple, requiring minimal labor inputs. Of the participating farmers, 90% were happy with the technology, and 80% of those planned to expand their operations. Beyond the obvious economic and nutritional advantages, farmers noted that tilapia culture had social benefits in that they were able to present fish to their neighbors, resulting in better relationships. Further research is necessary to address specific problems noted by farmers such as fish overpopulation caused by breeding, and the need of new fishing techniques to increase profitability. Step-by-step instructions for the cultivation of tilapia are included.



Beef cattle at a cattle research station in Uganda.

078

PN-ABN-873
MF \$2.16/PC \$18.72

Village nutrition in Egypt, Kenya and Mexico: looking across the CRSP projects

Calloway, D. H.; Murphy, S.; et al.
University of California, Berkeley
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Nutrition (Sponsor)
Apr 1992, xiv, 130 p.: statistical tables, En
Cover title: Functional implications of malnutrition
across NCRSP projects: final report — human nutrition
collaborative research support program
9311309

Data from field studies in Egypt, Kenya, and Mexico are compared in this study in an effort to make associations between food intakes and two outcomes — childhood growth and morbidity. At each site, data were gathered from about 300 households, focusing on toddlers (18-30 months) and schoolers (7-9 years). The research focused on four types of variables: classification of food and nutrients; comparative economic, social, and hygienic factors; anthropometry; and morbidity. The analysis shows that where food energy is insufficient, as in Kenya, it is a more powerful correlate of growth than socioeconomic status or household sanitation. However, as the findings from Mexico demonstrate, having enough food is not a sufficient condition for growth; energy adequacy brought about by increased intake of coarse, fibrous foods (which adversely affect absorption of minerals) leads to deficits of both mineral nutrients and other nutrients that are supplied by a more diverse diet. Addition of animal-source foods is desirable in both Kenya and Mexico, not for their protein content, which is generally adequate, but for mineral and vitamin content. In countries like Egypt on the other hand, where basic food levels are subsidized, household sanitation is more likely to affect children's well-being than food intake. Cross-country comparisons show that the factors affecting child growth are likely to be classifiable according to a typology of insufficient food, poor quality food, and poor sanitation. The relative contribution of these

factors can be predicted provisionally by a few markers. Body mass index of women is an indicator of overall food availability, pattern of food consumed an indicator of dietary quality, and adequacy of sanitary facilities and hygienic practices an indicator of risk of infectious disease.

079

PN-ABP-099
MF \$2.16/PC \$21.32

Development of a vitamin A-rich weaning food and child cereal from dried and 'instantized' sweet potato buds

Barrows, John; Solomons, Noel; et al.
International Eye Foundation
International Science and Technology Institute, Inc.
U.S. Agency for International Development. Bur. for
Food and Humanitarian Assistance. Ofc. of Private
and Voluntary Cooperation (Sponsor)
Oct 1992, [61] p. + 7 appendices: ill., charts, statistical
tables, En
9365116

Sweet potatoes are one of the best natural sources of Vitamin A, which is essential to healthy child development, and especially healthy eyes. This report documents the work of a pilot project in Guatemala to assess the potential for large-scale production of a processed, dried sweet potato product which could meet the needs, in terms of both culinary and nutritional acceptability, of poor families. The project: (1) documented the industrial process of converting a raw sweet potato crop into dried sweet potato buds; (2) tested a variety of packaging options in terms of cost and protection from light, humidity, and microbial contamination; (3) compared the provitamin A carotenoid (beta carotene) and Vitamin A content of the fresh starting material, the freshly prepared dried sweet potato buds, and the dried sweet potato buds after being stored in different packing materials for four months; (4) tested the acceptability of gruels and purees prepared from reconstituted sweet potato buds among young children and their mothers; and (5) enlisted 36 mothers from urban and rural areas to help develop or gather recipes and sugges-

tions for using the dried sweet potato buds, and compared the recipes for ease of preparation and palatability. The first part of the report presents the results of these activities, while the second consists of appendices which give more detailed information on the chemical analyses, surveys, and recipes which were part of the project.

080

PN-ABP-178
MF \$1.08/PC \$5.98

Labor and women's nutrition: a study of energy expenditure, fertility, and nutritional status in Ghana

Higgins, Paul A.; Alderman, Harold
Cornell University. New York State Colleges of Human Ecology & Agriculture & Life Sciences. Div. of Nutritional Sciences. Cornell Food & Nutrition Policy Program
U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)
Feb 1993, vi, [39] p.: statistical tables, En
CFNPP [Cornell food and nutrition policy program] working paper, no. 37
6980519

The role of energy expenditure in contributing to female malnutrition is potentially more important in sub-Saharan Africa than anywhere else in the world. African women tend to spend a relatively higher proportion of their time performing physically demanding tasks, with relatively less leisure time, due mainly to their central role in agricultural production and distribution, and a lack of labor-saving devices. This study uses household survey data from Ghana to examine the determinants of the nutritional status of adult women; its main contribution lies in exploiting time-use data to estimate the contribution of individual energy expenditure differentials in determining nutritional status. A secondary focus of the analysis is the role of fertility in women's malnutrition, i.e., whether rapid reproductive cycling contributes to a "maternal depletion syndrome." Results show that the physically demanding work performed by Ghanaian women in agriculture and possibly

also in food processing (e.g., pounding roots to make fufu), has a significantly negative effect on their nutritional status, suggesting that labor-saving devices may have as direct an impact on nutrition as increased food consumption. Ghanaian women's high fertility rate, in concert with disease and inadequate health care and nutrient availability, also take a measurable toll, highlighting the nutritional importance of education for women and of family planning programs. Includes references.

081

PN-AAX-270
MF \$2.16/PC \$19.11

Evaluation of A.I.D. child survival programs: Malawi case study

Schmeding, Robert; Ackerman, Laurie; et al.
U.S. Agency for International Development. Directorate for Policy. Center for Development Information and Evaluation. Ofc. of Evaluation
Nov 1993, iv, 52 p. + 3 appendices: charts, En
A.I.D. technical report, no. 12
Summary highlights: PN-ABG-008

The last in a series of evaluations aimed at glean general conclusions and lessons learned from A.I.D.'s worldwide child survival program, this report evaluates efforts in Malawi, which have focused on building local institutional capacity. The study assesses the Malawi program in five areas: (1) the effectiveness of interventions in water supply and sanitation, health education, child spacing, maternal and child health services, immunization, and malaria, HIV/AIDS, and diarrheal disease control; (2) economic efficiency; (3) financial and institutional sustainability; (4) long-term impacts; and (5) the program's relevance to specific conditions in Malawi. The following general conclusions emerged. (1) Female illiteracy is a critical obstacle to child survival. (2) The shortage of trained health personnel severely limits the quality and quantity of child survival services. (3) Child survival services have benefitted from being integrated within the broader national health portfolio. (4) The presence of many donors creates a management burden for the Malawi Government. At the same time, donor support for child

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survival is unpredictable. (5) In Malawi, malaria is the major barrier to further declines in infant and child mortality. HIV/AIDS is another major threat; with nearly 10% of the population infected by the virus, infant mortality could increase by as much as 50% over the next 10 years. (6) Interest in controlling diarrheal diseases has declined among both donors and the Ministry of Health. (7) Child survival investments are economically justified. (8) Sustainability is the most important objective of A.I.D.'s child survival programs, but the most difficult to attain. (9) Institution building and integrated health programs can be effective approaches to assisting national child survival programs. (10) Poor measurement of results weakens child survival programs. Appendices provide more detailed analyses of program sustainability and effectiveness, along with child mortality and morbidity data.

082

PN-ABN-940

MF \$1.08/PC \$7.80

Report from the cities: cases in urban child survival management-PVO child survival program 1985-1992

Storms, Doris, ed.

Johns Hopkins University. School of Hygiene and Public Health. Institute for International Programs
U.S. Agency for International Development. Bur. for Food and Humanitarian Assistance. Ofc. of Private and Voluntary Cooperation (Sponsor)

Sep 1992, 55 p.: ill., charts, En
9380526

With unique capacities to leverage human and financial resources and to sustain supportive relationships with health ministries in developing countries, PVOs have been successful in reaching underserved child populations in urban areas worldwide. This report explores the successes of 11 pioneer projects within the PVO Child Survival Program in East Africa, South Asia, Central America, and the Caribbean from 1985-1992. The report is presented in four sections, the first of which contains evaluations of programs implemented in Kenya, Bangladesh, India, Indonesia, Guatemala, Honduras, the Dominican Republic,

and Haiti. Each discussion covers the issues of human resource management, health information systems, work that lies ahead, and project sustainability. A second section discusses priorities for PVOs initiating urban health programs as well as financial constraints to sustainability of child survival programs. A third section covers PVO lessons learned and recommendations, including strategies to be used specifically in urban areas and those which can be used in all community-based programs. A final section explores strategies of other agencies for special urban problems — these include support for breastfeeding and family planning, HIV/AIDS education, environmental protection, alcohol and substance abuse prevention, and home-based health.

083

PN-ABP-180

MF \$2.16/PC \$20.15

Sustainability assessment of the Africa child survival initiative (ACSI) combatting childhood communicable diseases (CCCD) project, Nigeria, 1992

Goings, Stella A. J.; Pollack, Marjorie; et al.
Atlantic Resources Corp.

U.S. Agency for International Development. Bur. for Africa. Operations and New Initiatives Ofc. (Sponsor)
27 Jan 1993, v.p., En
6980421; 6200004

Factors affecting the potential sustainability of A.I.D.'s Africa Child Survival Initiative-Combating Child Communicable Diseases Project (ASCI-CCCD) in Nigeria, which began in 1986 and is scheduled for termination in 1993, are assessed. Contextually, potential sustainability is affected negatively by both political and economic factors. The proliferation of local governments in Nigeria, while giving communities unprecedented fiscal control, has generated a high level of political instability. On the economic front, the dwindling proportion of the federal budget allocated to health since 1980 weighs heavily against the ultimate sustainability of many of the CCCD components. At the programmatic level, however, ASCI-CCCD's perceived effectiveness and the Nigerian sense of

ownership of the project both augur well for sustainability, as does the project's integration into the national primary health care program, its effective training program, and its strategy of building constituencies through mutually respectful negotiations. Overall, the Expanded Program on Immunization and the project's training and information system components seem most likely to be sustained, while the Control of Childhood Diarrhea program and the routine data aspects of the Monitoring and Evaluation system are in jeopardy of not being sustained. A key lesson is that responsibility for assuring progress toward sustainability should be negotiated as part of the project process. This should include a negotiated process for local absorption of project costs in proportion to the community's ability to pay.

084

PN-ABP-218
MF \$1.08/PC \$3.64

Is the PRITECH country representative mechanism a model for the future? A view from the field

Steinwand, Robin Waite
Management Sciences for Health
U.S. Agency for International Development, Bur. for
Research and Development, Ofc. of Health (Sponsor)
Apr 1993, 23 p., En
PRITECH (technologies for primary health care) occa-
sional operations papers
9365969

The PRITECH project has demonstrated considerable success in the use of resident technical advisors (country representatives) to aid the development of national control of diarrheal disease programs. This paper, written from the perspective of a former country representative, examines the evolution of the country representative role, and identifies characteristics that have contributed to the success of this model. It was initially in the Sahel that PRITECH found that the costs of maintaining a full-time presence reaped benefits worth replicating. PRITECH has since identified qualities particular to the country representative mechanism that contribute greatly to its success, includ-

ing: flexibility in funding, strong technical expertise and technical support, improved communication with the local Ministry of Health (MOH), an emphasis on building relationships and sustainability, and a mandate to facilitate donor coordination. One important component of the model is the recommendation that these advisors, when possible, be expatriates who are already living in the country of service. This brings in an individual who has already established professional credibility with the MOH and other policymakers and donors, but has no political attachment in country. PRITECH believes that the country representative is an important component of a successful development project and should be budgeted into similar projects.

085

PN-ABP-317
MF \$1.08/PC \$5.98

Traditional healers baseline survey in Gomba County (Uganda)

Lwanga, James
Management Sciences for Health
U.S. Agency for International Development, Bur. for
Research and Development, Ofc. of Health (Sponsor)
30 Oct 1992, v, 37 p.: statistical tables, En
Assignment no. LPC 079-UG
9365969

A survey was conducted of traditional healers in Gomba County in Uganda's Mpigi district to provide baseline data for a pilot project proposing collaboration between traditional healers and health workers in managing diarrhea. The survey collected data on the age, ethnicity, religion, education, years in practice, number of childhood diseases treated, and method of treatment of 437 traditional healers; the survey included a demographic profile of Gomba County and sessions to sensitize the community to the proposed pilot project. Survey findings indicated that in their treatment traditional healers try to stop diarrhea, but not dehydration, which they do not take as a serious consequence of diarrhea. In fact, healers are generally unaware of the danger signs of the illness and do not consider counseling of caretakers (generally, mothers)

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part of their practice. On the other hand, the survey showed that traditional healers are willing to collaborate with health workers and to participate in joint workshops on health matters. Since the survey, some 44 traditional healers have been identified as candidates for training under the proposed pilot project. It is recommended that training emphasize the use of easily available fluids in managing diarrhea and the value of a balanced diet during and after diarrhea. It is also recommended that attitude formation and change be included in the training of both trainers and participants to offset some of the negative attitudes held by different factions in the community, e.g., the reluctance of some health workers to refer patients to healers.

086

PN-ABP-384
MF \$1.08/PC \$2.86

Women and children's health in Central Asian Republics: based on observations at the U.S.A.I.D. maternal and child health seminar, Alma Ata, Kazakhstan, 11-15 January 1993

Herrick, Allison Butler
Atlantic Resources Corp.
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Health (Sponsor)
25 Jan 1993, 15 p. + attachments, En
9365929

At a 1993 seminar sponsored by USAID, officials from the Central Asian republics of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan confirmed their countries' commitment to improving maternal/child health care. This paper reviews the issues discussed at the seminar along with possible USAID responses. The priority issues included maternal morbidity and mortality, breastfeeding, care of the newborn, family planning, acute respiratory infections (ARI), immunization, control of diarrheal disease (CDD), and health promotion (including AIDS education). Special emphasis was placed on reducing maternal and infant morbidity and mortality rates, which are higher in Central Asia than in the other New Independent States. The paper suggests that a regional maternal/child health

program, drawing upon the resources of USAID's central projects, would be entirely appropriate and consistent with the priorities discussed at the seminar. USAID assistance would aim at (1) improving women's health by addressing the problems of anemia (which reportedly is extraordinarily high in Central Asia) and reproductive tract morbidity, while helping to establish screening procedures for high risk pregnancies and a capacity for safe childbirth; (2) improving the health of children through promotion of breastfeeding and basic child survival interventions (immunization, CDD, and ARI control); and (3) promoting both maternal and child health by helping to expand the availability of contraceptives (including the introduction of new methods) and broadening the range of health professionals who offer counseling in child spacing.

087

PN-ABP-698
MF \$3.24/PC \$32.50

Notes from the field in communications for child survival

Seidel, Renata E., ed.
Academy for Educational Development, Inc.
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Health (Sponsor)
Apr 1993, x, 246 p.: ill., En
9311018; 9365984; 9311018; 9365984

Drawing upon field experiences over a 15-year period in A.I.D.'s Communication and Marketing for Child Survival project and two predecessor projects, this work compiles 24 papers and mini-case studies from over 30 countries. The papers, which were written by a range of professionals, including ministry of health personnel, communication specialists, researchers, PVO staff, marketing professionals, trainers, and artists, are arranged according to the six steps involved in developing health communications programs. These are: (1) research (epidemiological, anthropological, and behavioral) as the foundation of decisions; (2) strategies for behavior change (selecting the appropriate communication channels); (3) designing and testing effective materials, such as culturally appropriate art — posters, radio and television spots, mobile films,

comic books, etc.; (4) principles and tools for training (teaching skills rather than merely supplying information); (5) product marketing and promotion; and (6) management for the long term (institutionalizing capacities in local groups through consensus building). Specific interventions discussed in the document include diarrheal disease control, immunizations, child nutrition (breastfeeding, vitamin A), maternal health and birth spacing, control of acute respiratory infections, malaria and other vector-borne disease control, and water and sanitation. While some entries describe successes and others document problems, all demonstrate the value of a systematic focus on caretakers — parents, family, and community — in designing communication strategies that can make a difference to the children in their care.

088

PN-ABQ-013

MF \$3.24/PC \$29.90

Implementing diarrheal disease control programs: the PRITECH experience

White, Karen, ed.; Hanlon, Eileen, ed.
Management Sciences for Health
Academy for Educational Development, Inc.
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Health (Sponsor)
1993, iv, 236 p.: ill., En
9365969

Lessons learned from the PRITECH (Technologies for Implementing Primary Health Care) project's ten years of experience with control of diarrheal disease (CDD) programs are documented in this compilation of papers, most of which describe PRITECH's experiences in individual countries. An introductory paper on PRITECH's country representative method as a mechanism for implementing programs is followed by three groups of papers. The first group, citing experience in Mexico and Zambia, describes methods for communicating about the prevention and home management of diarrhea, including a description of PRITECH's popular information dissemination effort. The second group of papers cites examples from the Philippines, the Sahel, Guyana, Uganda, and Cameroon in de-

scribing pre- and in-service programs to train health workers in the case management of diarrhea and cholera. The final group of papers discusses PRITECH's innovative collaboration with NGOs and commercial companies in Zambia, Indonesia, Bolivia, and Kenya. Key lessons are as follows. (1) Continuing feeding during diarrhea and nutrition counseling are critical components of diarrhea case management. (2) The commercial private sector can be a valuable ally in increasing the availability of oral rehydration salts. (3) More effective strategies are needed for encouraging sustained behavioral change among caregivers and health workers. Also needed are clear and comprehensive protocols for managing dysentery and persistent diarrhea. (4) Service delivery must be adapted to the needs of urban populations and other high-risk groups. (5) To ensure that the resurgence of cholera does not distract funds from CDD, cholera control efforts should be channeled through national CDD programs. (6) Integration and decentralization should not be pursued as goals in themselves, but evaluated as strategies for achieving public health objectives.

089

PN-ABQ-174

MF \$1.08/PC \$1.95

Working paper: challenging health workers to develop a participatory approach to patient education

Berney, Karen Tompkins; Olukoya, Adepeju A.; Voigt, Ann
U.S. Public Health Service. Centers for Disease Control and Prevention. International Health Program Ofc.
U.S. Agency for International Development. Bur. for Africa (Sponsor)
[1993], 11 p., En
French ed.: PN-ABQ-236
6980421

In a structured learning experience/workshop, continuing education tutors and health education officials in Plateau and Niger States, Nigeria, were asked to consider the application of community participation principles to the process of patient education. This paper describes the

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workshop's activities designed to encourage health workers in Africa to develop their own participatory approach to working with clients/patients in health facilities. The workshop encouraged participants to develop personal, culturally appropriate, interactive styles of patient education. The participants designed step-by-step processes for working interactively with individual clients and groups, developed a plan to test them in nearby health facilities, and revised the learning activities for use with other health workers. Participants subsequently reported positive experiences with their participatory style of patient education. They will need, however, to address problems caused by the length of time required to interact with clients, strengthen their understanding of client perspectives and beliefs, extend their activities into the community, and develop evaluation techniques that will promote continued learning. (Author abstract, modified)

090

PN-ABQ-214

MF \$1.08/PC \$1.56

Viewpoint: rethinking PHC training

Bryce, Jennifer; Cutts, Felicity; et al.
U.S. Public Health Service. Centers for Disease Control and Prevention. International Health Program Ofc.
U.S. Agency for International Development. Bur. for Africa. Operations and New Initiatives Ofc. (Sponsor)
U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)
1992, 11 p., En
Cover title: Rethinking primary health care training
French ed.: PN-ABQ-215
6980421

This paper summarizes eight training-related issues facing primary health care planners today. Focus is on inservice training of health personnel in Africa. (1) Training in and of itself rarely solves health delivery problems, since new skills must be supported by commodities and other system elements. (2) The transfer of technologies and techniques is not a sufficient training goal; training programs should develop skills in policy formulation, data analysis and use,

management, and financing. (3) Inservice training programs should also incorporate needs assessment, planning, field follow-up, supervision, and evaluation. (4) Standardized curricula often fail to take into account trainee skill levels and changing local priorities; fewer prepackaged materials and more trainers skilled in curriculum design may be in order. (5) Training methods must fit the kind of learning that is sought, the experience and style of the trainer, the time available, and diversity of participants. (6) It is unlikely that "cascade" or "trickle down" training results in improved performance at the peripheral level; more second-generation or direct training at all levels is needed. (7) There is no one administrative structure that can ensure high-quality training. (8) Inservice training may actually work against sustainability. For example, health care delivery is often disrupted while personnel are in training, donor per diems can create expectations among personnel that they will be paid for training, and host governments are often unable to continue funding for special training activities.

091

PN-ABN-574

MF \$2.16/PC \$19.89

HIV/AIDS prevention and control and population/family planning: the potential for integration of programs and activities in sub-Saharan Africa

Bair, William D.; Clancy, Peter; et al.
Dual & Associates, Inc.
International Science and Technology Institute, Inc.
U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Population (Sponsor)
U.S. Agency for International Development. Bur. for Africa. Regional Economic Development Services Ofc. West and Central Africa (Sponsor)
5 Mar 1993, xiii, 153 p., En
6240510; 9363024

AIDS has grown to epidemic proportions in much of sub-Saharan Africa in only a few years. At the same time, rapid population growth continues to outpace the capacity

of African societies to feed, keep healthy, and educate their children, and provide jobs for them when they mature. There are definite points of contact between programs that deal with the threat of AIDS and those that deal with reproductive patterns threatening the lives of mothers and children and the economic well-being of families. The

There are definite points of contact between AIDS and family planning programs. Many in the public health community feel that both issues could be addressed more effectively by integrating these activities.

public health community sees a potential for more effectively addressing these two concerns through some degree of integration of population/family planning and HIV/AIDS programs and activities. This report, based on interviews in Washington, D.C., and at WHO in Geneva, and site visits to activities in Zimbabwe, Botswana, and Uganda, assesses the technical and administrative feasibility and program implications for integrating HIV/AIDS activities into established population/family planning programs. Although the study cautions against wholesale integration of activities, it sees many potential advantages to integration under certain circumstances. Possible advantages include: exploiting the experience of NGOs which have been working in the family planning field; moving both family planning and HIV/AIDS programs into a more non-fixed facility, community based mode; addressing target audiences of men and youth more effectively (including more open discussion of human sexuality and contraceptives); and carrying out research or developing policy thrusts common to both interests more efficiently. Some disadvantages include previous disappointing experience with integration of family planning and maternal/child health care; the potential for overloading weak systems; and differences in the opinions of HIV/AIDS and family planning programmers as to which are the more appropriate contraceptives. Individual chapters of the report detail: lessons learned from family planning programs; country experiences of family planning and HIV/AIDS programs; suggested areas for integration of activities; program management concerns; constraints to integration; and recommendations. Includes bibliography. (Author abstract, modified)

092

PN-ABN-827

MF \$1.08/PC \$9.10

Confronting AIDS in the developing world: a report to Congress on the USAID program for prevention and control of HIV infection

U.S. Agency for International Development

Aug 1992, 67 p.: ill., charts, maps, statistical tables, En

Since 1986 USAID has launched over 700 bilateral programs in more than 70 countries to contain and prevent the spread of HIV/AIDS infection. This report outlines USAID's past, ongoing, and plans for future responses to the threat of HIV/AIDS worldwide. An initial section presents an overview of the disease's prevalence in sub-Saharan Africa, Asia, Latin America and the Caribbean and the manner in which it has contributed to the deterioration of the regions' economic and social bases. A second section discusses USAID's cooperative efforts with the World Health Organization (WHO)/Global Program on AIDS (GPA) as well as its bilateral assistance program. A third section contains examples of USAID successes — social marketing techniques which have increased condom sales, effective STD education, community mobilization, and the use of religious leaders to promote fidelity. A final section previews future USAID-sponsored HIV/AIDS interventions — continuation of technical assistance and program development, including a new five-year cooperative agreement with Family Health International and a pilot NGO support program. Two appendices are included. The first contains a sampling of USAID-funded projects in 19 countries within Africa, Asia, and Latin America and the Caribbean. A second charts USAID funding obligations for HIV/AIDS prevention activities for FY 1991.

093

PN-ABP-166
MF \$1.08/PC \$10.53

Lessons and legacies: the final report of a grants program for HIV/AIDS prevention in Africa

Mercer, Mary Anne; Mariel, Cynthia E.; Scott, Sally J. Johns Hopkins University. School of Hygiene and Public Health. Institute for International Programs U.S. Agency for International Development. Bur. for Africa. Ofc. of Technical Resources (Sponsor) Jan 1993, [79] p.: ill., En 6980474

The majority of the world's nearly 13 million cases of HIV infection are believed to be in Africa. From 1989-1992 the HIV/AIDS Prevention in Africa (HAPA) project provided grants to five U.S. PVOs and one university to conduct nine HIV prevention projects in sub-Saharan Africa. This report evaluates the effectiveness of activities by Save the Children (Zimbabwe and Cameroon); World Vision Relief and Development (Zimbabwe and Kenya); CARE (Rwanda); Project HOPE (Malawi and Swaziland); World Learning (Uganda); and The Johns Hopkins University (JHU) School of Hygiene and Public Health (Malawi). The grants provided seed money to help the recipients establish technical expertise in HIV/AIDS prevention. Recipients focused their interventions on education and motivation for behavioral change. The report, drawn from extensive interviews, is presented as a "lessons learned" narrative, covering the topics of (1) project planning, management and implementation, intervention design, and sustainability; (2) PVO headquarters operations; and (3) the HAPA technical advisory group. Conclusions and recommendations are included in a final section.

094

PN-ABP-292
MF \$1.08/PC \$7.80

Protective mechanisms against malaria associated with glucose 6-phosphate dehydrogenase (G6PD) deficiency: final scientific report

Golenser, J.; Chevion, M.; Ngu, J. L. Hebrew University of Jerusalem. Hadassah Medical School. Dept. of Parasitology U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Research (Sponsor) Apr 1993, 58 p., EN AID/SCI no. C7-163 9365544

The control of malaria has been hampered by the emergence of plasmodium parasites resistant to standard antimalarials, making development of new drugs and a vaccine a priority. One approach is to follow natural defense mechanisms, which appear to exploit the parasite's susceptibility to oxidant stress by favoring the buildup of reactive oxygen species (i.e., compounds) in the blood. In areas where malaria is endemic, such as certain parts of Africa, populations show a relatively high frequency of genetic variations which may, by allowing for greater buildup of these compounds in the blood, confer immunity upon their holder; one common variant is glucose-6-phosphate dehydrogenase deficiency. The research described in this report addressed three topics: (1) identifying and distinguishing different strains of plasmodium, which exhibit different antigenic responses; (2) studying the mechanisms through which oxidant stress inhibits or destroys malaria parasites; and (3) analyzing the action of three antimalarials, chloroquine, primaquine, and quinine, and in particular, whether the single electron redox reactions of these drugs are a factor in their antimalarial activity.

095

PN-ABQ-256
MF \$1.08/PC \$5.07

Thirteen lessons learned—1981-1993: Africa child survival initiative (ACSI)— combatting childhood communicable diseases (CCCD)

Foster, Stanley O.

U.S. Public Health Service. Centers for Disease Control

U.S. Agency for International Development. Bur. for
Africa. Operations and New Initiatives Ofc. (Sponsor)

U.S. Agency for International Development. Bur. for
Africa. Ofc. of Analysis, Research and Technical
Support (Sponsor)

World Health Organization (Sponsor)

U.N. International Children's Emergency Fund (Spon-
sor)

Rotary International. Rotary Foundation (Sponsor)

1993, 35 p.: charts, statistical tables, En
6980421

Thirteen lessons learned from the African Child Survival Initiative Program are presented here, each illustrated by a case study. (1) Reliable and timely health information is essential to planning and management. (2) Understanding community knowledge, attitudes, and practices is an important early step in program development. (3) Data provide the foundation for policy formulation. (4) Quality of services is critical to effective program implementation. (5) Hands-on training is an effective way to upgrade the quality of facility case management of diarrhea. (6) Vaccines can be effectively delivered in Africa. (7) Setting targets and monitoring progress provide essential data for program management and modification. (8) Applied research is important to solving problems encountered in program implementation. (9) Regional projects are an effective technical assistance strategy. (10) Technical officers in Ministries of Health provide and facilitate effective TA. (11) Local leadership is key to program implementation. (12) Administrative support is critical to program implementation. (13) USAID's partnership with the U.S. Centers for Disease Control was an effective mecha-

nism for directing TA. Each lesson is discussed in terms of project actions, achievements, constraints, and future challenges.

096

PN-ABN-818
MF \$1.08/PC \$10.53

Water quality assessment in Ecuador

Chudy, John Paul; Arniella, Elio; Gil, Enrique
Camp Dresser and McKee, Inc.

U.S. Agency for International Development. Bur. for
Latin America and the Caribbean. Ecuador (Sponsor)

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Health (Sponsor)

Feb 1993, xiv, 71 p.: charts, statistical tables, En
9365973

As part of A.I.D.'s response to the El Tor cholera epidemic which arrived in Ecuador in 1991, a multidisciplinary team from the Water and Sanitation for Health (WASH) Project conducted a cholera assessment of the country. The team reviewed conditions at both the national level and in three hard-hit coastal cities (Guayaquil, Machala, and Esmeraldas), examining factors directly affecting disease transmission (water quality and quantity, excreta and solid waste disposal, and health practices) as well as indirect influences (community participation, institutional and human resource development, financial planning, and the legal and regulatory environment). Problems found included: water contamination due to interrupted water supply and loss of pressure; loss of chlorine residual in water stored overnight in 55-gallon tanks; poor hygienic practices in managing excreta; use of contaminated water for bathing and washing clothes; lack of cholera prevention programs; failure to base health education messages on the knowledge, attitudes, and practices of populations at risk; limited attempts to engage communities in program planning and implementation; inadequate excreta disposal facilities; lack of a national or regional cholera strategy; weak inter-institutional cooperation; and poor management and service provision on the part of the Ecuadorian Institute of Sanitary Works. Includes short-and long-term

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recommendations at both the national and site-specific levels. The key recommendation for USAID is to increase assistance for latrination in urban areas.

097

PN-ABN-953

MF \$1.08/PC \$5.59

Constraints in providing water and sanitation services to the urban poor

Solo, Tova Maria; Perez, Eduardo; Joyce, Steven
Camp Dresser and McKee, Inc.

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Health (Sponsor)
Mar 1993, xi, 35 p., En
9365973

Provision of water and sanitation to informal Third World urban settlements can be extremely difficult, due to a range of constraints — physical, technical, financial, institutional, and most of all, structural. Physical and technical constraints arise because the urban poor tend to settle on the most undesirable pieces of land for economic reasons. Ironically, where the cost of land goes down, the cost of bringing in services goes up. Also, informal settlements often develop haphazardly, without adequate space for installing infrastructure lines, and local engineers prefer to use service delivery modes with which they are familiar, even when these turn out to be inappropriate for the difficult topography, soils, and other conditions of slum neighborhoods. Financial constraints include both the high costs of connections in or near the house and the shortage of capital for investment. Attempts to get independent banks to finance slum upgrades have been widely unsuccessful. The major institutional constraints are ineffective public works companies. Typically, public works companies lack motivation to deliver quality services to marginal areas; nor have private service companies shown eagerness to extend infrastructure to poor neighborhoods. Structural constraints — those involving zoning, land-use planning, land markets, building codes, and property rights — are the most difficult to address, let alone resolve, because they involve conflicting values and policy viewpoints. The present policy of many international agencies

to emphasize private sector growth over social development may present a new barrier in getting services to the poor. The greatest bottleneck, however, is indifference and even hostility, at local, national, and international levels. (Author abstract, modified)

098

PN-ABP-229

MF \$1.08/PC \$12.09

Rapid assessment for decision making: efficient methods for data collection and analysis

Reinke, William A.; Stanton, Bonita F.; et al.
Camp Dresser and McKee, Inc.

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Health (Sponsor)
U.S. Agency for International Development. Bur. for
Latin America and the Caribbean. Chile (Sponsor)
Jan 1993, xvii, 80 p.: charts, En
9365973

Considerable attention has been focused recently on devising simple, inexpensive, rapid methods for collecting and analyzing data on health conditions. Personnel charged with developing water and sanitation programs for peri-urban areas have a particular need for rapid assessment methods because little reliable health information on these areas is available. Until more is understood about mortality, morbidity, and sociocultural factors in peri-urban areas, extreme care must be exercised in extrapolating findings from rural studies. Rapid methods that have been devised include techniques from epidemiology, biostatistics, industrial quality control, and a variety of other disciplines. Nine such rapid assessment methods are described in this report, eight in some detail. Each method is explained in terms easily understandable by nonspecialists, and its strengths and weaknesses are enumerated. Emphasis is put on when to use the methods, not how to use them. The rapid methods covered are: cluster sampling; lot quality assurance sampling; double sampling; reduced and tightened inspection; epidemiological surveillance; demographic surveillance; industrial process control methods;

case control analysis; and sociocultural group assessment methods (this last is dealt with only briefly). (Author abstract, modified)

099

PN-ABP-286
MF \$2.16/PC \$17.42

Rehabilitating community water systems: planning for sustainability

McGowan, Rick; Hodgkin, Jonathan; et al.
Camp Dresser and McKee, Inc.
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Health (Sponsor)
Apr 1993, xiv, 127 p.: ill., En
9365973

Rural water system failures are common in developing countries due to inattention to the factors needed to ensure system sustainability. This manual, based on Associates in Rural Development's overseas experience, presents a comprehensive guide to planning and implementing rural water system rehabilitation projects in communities of 200 to 10,000 people, with stress on community participation and management and intelligent planning as the key to system sustainability. Individual chapters discuss: (1) the background information needed for choosing a site, estimating procurement needs, and determining level of effort; (2) the use of rapid rural appraisals for assessing community needs; (3) the roles of community members, especially women, and of internal and external agencies in project planning and implementation, with specific attention to the agreements that define the responsibilities of each party; (4) technical aspects of rehabilitation relating to water sources (boreholes, open wells, water quality), mechanical systems (pumps, engines, or motors), water storage facilities, and the water distribution system; (5) implementation and logistics (procurement and delivery of equipment and materials, labor, transportation, subcontracting, and project supervision); (6) operation, maintenance, and repair practices; and (7) issues of finance. A final chapter summarizes the points to consider when deciding whether, given exist-

ing resources, to repair, rehabilitate, or replace existing systems, or do nothing further. Technical works are referenced throughout the text.

100

PN-ABP-615
MF \$1.08/PC \$9.36

Unique challenges of improving peri-urban sanitation

Hogrewe, William; Joyce, Steven D.; Perez, Eduardo
Camp Dresser and McKee, Inc.
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Health (Sponsor)
Jul 1993, xii, 67 p.: charts, En
9365973

This document is intended to be an informational tool that helps project designers better understand and confront the problems in improving sanitation in peri-urban areas. It is not meant to be a technical design manual, nor is it a comprehensive reference document on existing technologies. The ultimate goals of the report are to provide the reader with some key questions to ask, with information to gather as part of the planning and design process, and with suggestions about what basic approach to follow in setting up peri-urban sanitation projects. Peri-urban areas present unique challenges to sanitation improvement activities. Most challenging are the characteristics that set these areas apart from the urban and rural sectors: poor site conditions, unreliable water availability, high population density, the heterogeneous nature of the population, and the lack of legal land tenure. These characteristics are much more complex than those typifying rural and formal urban areas. The "standard" technical and social solutions for low-cost sanitation currently used in rural communities are not necessarily appropriate for improving community sanitation in peri-urban areas. Conventionally, most community sanitation problem assessments and project design efforts focus on the technical feasibility of intervention options. Experience suggests that these technology intervention projects often fail to meet their objectives. The report

suggests that the complexities of peri-urban settlements required that a more comprehensive interdisciplinary approach be used to clarify the problem before attempting to design a project that will address peri-urban community sanitation needs. This document reviews the key public health, environmental, social, financial, economic, legal, and institutional issues that many of these settlements face and must be understood before developing a program designed to improve a peri-urban community's sanitation services. To address these problems, the project designer must deal not only with engineers but also with legal specialists, financial analysts, social scientists, urban planners, and a wide range of institutions, such as the water and sanitation utility, the Ministry of Health, urban development authority, and the municipality. The document should be particularly useful for those project officers in A.I.D. and other international organizations who come to the urban sector with "generalist" experience, or with previous experience in providing water and sanitation in their developed countries or in rural areas of less developed countries. The paper also should be helpful for technical specialists who assist with project development, particularly in ensuring that they become aware of issues in a wide range of subject areas other than their specialty. The sanitation challenges peri-urban areas present are unique, and they demand that difficulties in providing appropriate excreta disposal systems be confronted head-on. In some "impossible situations," no technical solution will prove viable. To create new solutions, project leaders must challenge the status quo at the municipal and national levels of developing countries, which continue to deal with urban sanitation in a conventional way. By necessity or choice, in the foreseeable future, government institutions, bilateral and multilateral aid organizations, the engineering sector, and NGOs, all will be compelled to shift more of their attention and resources to the sanitation needs of peri-urban populations. (Author abstract)

Guidelines for improving wastewater and solid waste management

Andrews, Richard N.; Lord, William B.; et al.
Camp Dresser and McKee, Inc.
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Health (Sponsor)
Aug 1993, xiii, [135] p.: charts, statistical tables, En
9365973

Pollution from wastewater and solid waste is a significant problem for developing countries, especially in urban and peri-urban areas. Unfortunately, these countries lack the financial and institutional resources to manage waste through the combination of advanced technology and strict regulation used by industrialized nations. This report presents a methodology for improving waste management within these limitations. According to the methodology, there are three possible points of intervention: the individuals and institutions responsible for pollution, those responsible for waste management (e.g., environmental resource and water treatment plant managers), and policies and actions to diminish the adverse effects of pollution. Policy and management are assumed to be the primary influences at each of these control points. The methodology has four steps: (1) determining the health, environmental, social, and economic impacts of poor waste management; (2) identifying key groups and institutions whose decisions and actions affect waste management; (3) examining technologies, policy instruments, and institutions (the three key components of any waste management program); and (4) developing, from the best combination of these three components, a strategy for a national program or a project funded by international donors. Such a strategy should be guided by five principles: health risk reduction, pollution prevention by reducing waste at the source or recycling, provision of efficient services, cost recovery from those who benefit, and selection of appropriate treatment and disposal technologies. Appendixes

include an annotated bibliography; a technical discussion of the potential impacts of waste; and information on U.S. water quality standards.

102

PN-ABQ-177

MF \$1.08/PC \$7.28

Planning for urban environmental health programs in Central America: the development of water and sanitation-related environmental health indicators and the survey of existing data in three countries

Rothe, Gail; Perez, Eduardo

Camp Dresser and McKee, Inc.

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Health (Sponsor)

U.S. Agency for International Development. Bur. for Latin America and the Caribbean (Sponsor)

Oct 1993, xiii, 46 p., En
9365973

Environmental health problems related to water supply and sanitation conditions in urban areas of Central America are documented in this study. The task was carried out in

two stages. First, a set of environmental health indicators — in the areas of water supply, sanitation and wastewater, solid waste, hazardous waste, water pollution, food hygiene, and morbidity and mortality — was developed. A special effort was made to collect data that distinguished formal urban areas from informal or periurban areas. Next, field trips were made to Guatemala City, Tegucigalpa, and San Salvador to collect secondary data. However, only about 25% of the data sought were actually collected, making a regionwide quantitative assessment of environmental health problems impossible. There was almost a total lack of official data on informal areas, although anecdotal evidence and local studies made up for this somewhat. Conservative estimates are that: (1) 5-10% of urban populations have no sanitary facilities whatever, and 30% use latrines which, because of their concentration, may contaminate groundwater; (2) sewage is not treated, but simply moved from one area of the city to another, often to surface waters used for drinking; (3) hazardous wastes from industries and hospitals are treated the same way as other wastes; (4) wastes from hundreds of formal and probably thousands of informal industries are not regulated; (5) 50% of all solid waste is left uncollected near homes, while the other 50% is disposed in unsanitary landfills; (6) the effects of pollution on health in periurban areas seems far greater than in formal areas. Short-, medium- and long-term recommendations for USAID action to improve data availability are presented in conclusion.



A drainage ditch in Alexandria, Egypt. Wastewater pollution is a significant problem for many developing countries.

POPULATION & HUMAN SETTLEMENTS

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PN-ABN-486

MF \$5.40/PC \$63.44

Twelve who survive: strengthening programmes of early childhood development in the Third World

Myers, Robert

Consultative Group on Early Childhood Care and Development

U.S. Agency for International Development (Sponsor)

U.N. International Children's Emergency Fund (Sponsor)

Ford Foundation (Sponsor)

U.N. Educational, Scientific and Cultural Organization (Sponsor)

1992, xxvii, 468 p.: ill., charts, En

Published by: Routledge

This book examines existing child development programs and provides recommendations for improving them. Part 1 documents the evolution and current configuration of child care and development programs, with emphasis on the period after 1979, the International Year of the Child. Part 2 seeks to clarify key concepts in the literature on early childhood development. From this review, a comprehensive programming strategy is suggested combining stages of development with five complementary approaches (direct attention, education of caregivers, community development, strengthening institutions, and strengthening awareness and demand) and with several program guidelines (emphasize children at risk, be comprehensive and participatory, adjust to the cultural context, reinforce and complement local ways, and seek cost-effective solutions having the potential for maximal coverage). Part 3 presents a "state of the practice", describing and assessing a range of program options available for carrying out the five complementary approaches; the advantages and disadvantages of each approach are considered, and specific examples of programs are described briefly. Part 4 discusses problems in combining the program elements. Individual chapters deal with: relating health and nutrition to social and psychological well-being; combining child development programs with primary level schooling; and integrating child care programs with efforts to improve women's

work and welfare. Parts 5 and 6 treat community involvement, the importance of identifying and respecting traditional wisdom in childrearing, and issues of scale and costs. A final part sets out conclusions and recommendations. (Author abstract, modified)

104

PN-ABP-288

MF \$1.08/PC \$9.75

Population and health data for Latin America: Dominican Republic, Mexico, Guatemala, Colombia, Ecuador, Bolivia, Brazil, Peru

Marckwardt, Albert M.; Ochoa, Luis H.

Macro International. Institute for Resource Development

Pan American Health Organization

U.S. Agency for International Development. Bur. for Latin America and the Caribbean (Sponsor)

Mar 1993, 88 p.: charts, statistical tables, En 9363023

Data from Demographic and Health Surveys conducted between 1986 and 1989 in eight Latin American countries — Bolivia, Brazil, Colombia, the Dominican Republic, Ecuador, Guatemala, Mexico, and Peru — are compared. The data cover the following areas: fertility, fertility planning, and fertility risk status; unmet needs for and prevalence of contraception; infant and child mortality; antenatal care; attention at delivery; breastfeeding and supplemental feeding; child immunization; child nutrition; and diarrhea prevalence and treatment. The following trends are noted. (1) Rapid drops in total fertility rates (averaging about 0.02 children per woman per year in all the countries surveyed) were detected. (2) Women with at least some secondary education showed higher rates of contraceptive use and attendance of health professionals at time of child delivery, along with lower fertility rates and shorter duration of breastfeeding. (3) The pill, once very popular in most of Latin America, is now utilized by less than 20% of contraceptive users in all but Colombia and Brazil. Sterilization is the method most relied on by women in all countries except Bolivia and Peru, where traditional

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methods are widely used. (4) Infant mortality continued to decline in all countries and showed a steep drop when births were spaced by at least 2 years. (5) A large majority of women breastfeed their children, ranging from 83% in Mexico to 96% in Bolivia; median duration of breastfeeding varies widely, however, from 6 months (Brazil) to 21 months (Guatemala). (6) Prevalence of diarrhea by age was consistent in all countries, being highest for children aged 12-23 months and declining rapidly along 4-year-olds. Use of oral rehydration therapy was low in Brazil and Guatemala, but averaged 30-50% elsewhere. (7) Immunization coverage is good for the first dose, but only Brazil and Colombia have good follow-up coverage. Includes numerous charts and tables.

105

PN-AAX-266

MF \$2.16/PC \$17.55

A.I.D.'s family planning program in Honduras

Martin, Richard; Buttari, Juan; et al.

U.S. Agency for International Development. Directorate for Policy. Center for Development Information and Evaluation. Ofc. of Evaluation

Jun 1993, xiii, 67 p. + 4 appendices: charts, statistical tables, En

A.I.D. technical report, no. 9

Summary highlights: PN-ABG-012

Despite strong religious and political opposition, A.I.D.'s support for family planning (FP) in Honduras has had significant and measurable impacts. Early attempts by A.I.D. and aggressive advisors to install visible FP services in the Ministry of Health (MOH) failed, so A.I.D. shifted most of its support to the private sector Honduran Family Planning Association (ASHONPLAFA), beginning in 1981. It also began portraying FP as a health intervention to reduce the rate of high-risk births that could lead to infant and maternal mortality. Due in good part to A.I.D.'s assistance, Honduras' total fertility rate has declined from 6.4 children per family in 1981 to about 5.1 in 1992. However, given the country's contraceptive prevalence rate of 46.7%, fertility should be lower than it is. The extensive use of inefficient methods (rhythm and with-

drawal, which are growing faster than modern methods), high discontinuation rates, early onset of childbearing, low levels of exclusive breastfeeding, and the variable quality of FP services (especially in MOH clinics) may be some of the factors to blame. Moreover, there is a general feeling that the A.I.D. program has been overly cautious due to fear of public attacks. The institutional conditions for a strong program have been created by A.I.D., and now perhaps the greatest need is for improved promotional activities. In sum, the Honduran program shows that A.I.D.-supported FP can succeed — if presented as a health program — even in a potentially hostile political environment; that providing complementary assistance in the public and private sectors is a sound strategy; and that fees high enough to cover most costs are not an obstacle to widespread use of FP services.

106

PN-AAX-274

MF \$2.16/PC \$16.51

Evaluation of A.I.D. family planning programs: Ghana case study

McClelland, Donald G.; Johnston, Alan G.; et al.

U.S. Agency for International Development. Directorate for Policy. Center for Development Information and Evaluation. Ofc. of Evaluation

Nov 1993, xiii, 57 p. + 5 appendices: statistical tables, En

A.I.D. evaluation technical report, no. 13

Summary highlights: PN-ABG-019

Between 1968 and 1991, USAID supported 8 bilateral and 43 centrally funded family planning (FP) programs in Ghana. Assistance fell into two distinct phases — 1969-1982 and 1985-1991 — with assistance suspended from April 1983 to July 1984. This report assesses the impact of this assistance in light of the country setting and the national FP program which it supported, with specific attention to that program's overall efficiency, cost-effectiveness, sustainability, and long-term development impact. According to the assessment, progress was practically negligible in the initial period of USAID assistance, but improved during the second phase: the number of FP

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delivery points increased dramatically; nearly all of the clinics distributing contraceptives were reporting regularly; the Ghana Social Marketing Program made significant progress in expanding the number of delivery points for commercial sector condoms; and during the period 1987-91, couple years of protection nearly tripled, from 75,000 to 223,000. Nonetheless, FP has made only limited gains in Ghana in terms of fertility rate (6.8% in 1965 vs. 6.4% in 1988) and contraceptive prevalence rate, which is the most reliable measure of the impact of any FP program. While the latter rate did increase from 9.5% in 1979 to 12.9% in 1988, the increase was largely in traditional methods; use of modern methods actually dropped slightly, from 5.5% to 5.2% during the period, although it rose to 8%-10% by 1991 and seems to be rising still. One factor behind Ghana's weak demand for modern contraceptives has been the severe economic crisis of the late 1970s and early 1980s, which led to a deterioration of both public and private health services. This situation was compounded by a mass exodus of Ghanaian professionals, including doctors, and the suspension of USAID assistance.

107

PN-ABP-375

MF \$1.08/PC \$6.50

Sources of fertility decline in modern economic growth: is aggregate evidence on the demographic transition credible?

Schultz, T. Paul

Institute for Policy Reform

U.S. Agency for International Development, Directorate
for Policy, Ofc. of Policy Analysis and Resources
(Sponsor)

May 1993, v.p.: statistical tables, En

Working paper series / Institute for Policy Reform
(IPR), no. 58

9300095

The large declines in total fertility rates that have occurred in many low-income countries since 1960 are thought to have been caused by subsidized birth control and economic development, in roughly equal proportions. Studies of these issues are not generally guided by eco-

nomic approaches to the determinants of fertility. Consequently, income is not disaggregated according to its sources, which according to some economic theories should exert different effects on fertility and child mortality. The assumed exogeneity of child mortality as a determinant of fertility has also not been subjected to statistical tests, and national family planning programs are assumed to occur independently of consumer demands for these services. Because of these statistical and economic shortcomings of the existing evidence on these issues, and the social significance of child mortality, fertility, and population growth on a global scale, this paper analyzes the aggregate evidence and confirms many microeconomic findings about the determinants of child mortality and fertility. Based on data for 62 low-income countries in 1972, 1982, and 1988, the educational attainment of adult women is a powerful engine of demographic change, associated with lower levels of child mortality and fertility, and on balance slower population growth. Factors that permit higher levels of calorie consumption per capita, given a country's education and income, are associated with lower levels of child mortality, and Wu-Hausman tests confirm that child mortality is endogenous in exerting its substantial positive effect on fertility. Male education is associated with higher levels of fertility, while income levels from nonhuman capital sources, compared on a purchasing power parity basis per adult, are associated with lower child mortality but higher fertility. Decreases in the share of the labor force employed in agriculture are associated with decreases in fertility. If family planning programs are assumed to be independent of parent demands for birth control and other unobserved variables affecting fertility, family planning exerts a significant, but quite small, effect on fertility. If family planning programs are more realistically treated as endogenously affected by transfers to a country by a major international donor agency (IPPF), the role of domestic family planning programs is an insignificant determinant of fertility. (Author abstract)

108

*PN-ABP-893
MF \$2.16/PC \$18.72

Norplant guidelines for family planning service programs: a problem-solving reference manual

McIntosh, Noel, ed.; Riseborough, Penelope, ed.; Davis, Chris, ed.
JHPIEGO Corp.

Population Council

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Population (Sponsor)

Jan 1993, ix, [137] p.: ill., En
9363045

**Also available from: JHPIEGO Corporation, 1615 Thames St., Suite 200, Baltimore, MD 21231 USA*

Developed by The Population Council over a period of some 15 years and now approved for use in 27 countries, including the United States, Norplant is a reversible contraceptive that provides effective protection for up to 5 years. Six thin, flexible capsules made of a soft, rubber-like material and filled with a synthetic hormone are inserted just under the skin of a woman's upper arm by means of a minor surgical procedure. The purpose of this manual is to provide physicians, nurses, and midwives with essential information on how to use Norplant safely. Instructions are arranged according to the sequence in which clients are usually cared for — starting with general counseling, client assessment, insertion of the capsules, follow-up care, management of side effects and health problems, and concluding with capsule removal. A section on the basics of organizing and managing Norplant services is also included. The material is provided in concise modules for ease in learning and recall; each module includes references. Appendices include guidelines for family planning counseling and instructions for processing reusable gloves and for decontaminating and cleaning instruments, needles, syringes, and linens.

109

PN-ABQ-190
MF \$1.08/PC \$4.42

African population programs: status report

Population Reference Bureau, Inc.

Academy for Educational Development, Inc.

U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)

World Bank. Africa Technical Dept. Human Resources and Poverty Div. African Population Advisory Committee Secretariat (Sponsor)

May 1993, 28 p.: charts, statistical tables, En
French ed.: PN-ABQ-191
6980483

In 1984 the Second Africa Population Conference held in Arusha developed the Kilimanjaro Plan of Action on Population (KPA) — a set of recommendations for the formulation of national population policies in sub-Saharan Africa. This report assesses the implementation of the KPA almost ten years after its adoption. According to the report, during the 1980's governments felt a new appreciation for population issues due to rapid population growth and economic decline and reflected this new sentiment in population policies. Simultaneously, these policies were reinforced by changes in traditional family structures — increases in female-headed households and female education, urbanization, and the increased cost of raising children. The report then discusses the strengths and weaknesses of the national population programs in sub-Saharan Africa — 2 country programs (Botswana and Mauritius) are considered strong, while 7 are rated moderate, 24 weak, and 8 very weak. Overall, more progress has been made in policy formulation than service availability, and the report notes the gap between desire for and use of family planning services. The next section presents (1) general recommendations in the areas of policy formulation and implementation, and (2) more specific recommendations for family planning programs, geared to level of program progress — strong, moderately successful, or weak. The report concludes by stressing the need for increased national fiscal

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commitment to population programs, more private sector and community participation, and enhanced coordination between NGOs and national governments.

110 **PN-ABN-972**
MF \$1.08/PC \$12.61

Land tenure security and state farm divestiture in Mozambique: case studies in Nhamatanda, Manica, and Montepuez districts

Myers, Gregory W.; West, Harry G.
University of Wisconsin at Madison. Land Tenure Center
Mozambique. Ministry of Agriculture (Sponsor)
U.S. Agency for International Development. Bur. for Africa. Mozambique (Sponsor)
U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Economic and Institutional Development (Sponsor)
Jan 1993, xvi, 87 p.: maps, statistical tables, En
Research paper / Land Tenure Center, University of Wisconsin - Madison, no. 110
Appendices: PN-ABP-203
9365453

Despite the lack of a formal legal framework, divestiture of the Mozambique state-farm sector continues at the hands of provincial officials who are acting in response to unsanctioned, informal government recommendations. This paper assesses the consequences of Mozambique's haphazard divestiture system through case studies of Lamego State Agricultural Enterprise, Nhamatanda District; Vanduzi State Farm, Manica District; and Cabo Delgado Cotton State Farm, Montepuez District. The primary conclusion is that the country's agricultural sector is suffering severely due to land tenure insecurity. In all three cases, smallholders are being displaced by officials who consider them incapable of exploiting state farm infrastructure and equipment, while larger commercial farmers are being denied credit because their tenure rights are by no means firmly established. Land tenure uncertainty has discouraged agricultural investment and caused a decline in productivity. Secondly, assets anticipated from liquidation of

state lands, and intended for use in debt reduction, have not been collected as some applicants for state farm land have been allowed to occupy land without purchasing or paying rent. In addition to the three case studies, the paper includes a general historical overview of the state farm sector, focusing on policy, legal, and economic factors affecting its emergence and collapse. Intermediate- and long-term recommendations are provided in conclusion, along with a 6-page bibliography.

111 **PN-ABP-886**
MF \$1.08/PC \$5.20

Urban infrastructure and the urban poor: measurement and analysis for policy, planning, and project implementation

Gardiner, Peter; Gardiner, Mayling-Oey
U.S. Agency for International Development. Bur. for Private Enterprise. Ofc. of Housing and Urban Programs
U.S. Agency for International Development. Bur. for Asia. Indonesia
Jan 1993, 34 p., En
Working paper / U.S. Agency for International Development. Office of Housing and Urban Programs
4990000

With USAID assistance, the Government of Indonesia (GOI) has been engaged in a concerted effort to improve living standards in cities and towns by providing basic urban infrastructure and services and by increasing local governments' capabilities to plan, finance, and manage such development. A major concern in this effort is the degree to which these programs are benefiting the urban poor and women. In response to this concern, this study examines the feasibility of undertaking a household survey or series of surveys to determine the incidence of benefits, by income group and gender, of programs in urban infrastructure, specifically of water supply, sanitation, drainage, waste management, and road programs. After a review of the overall policy and program environment, the study sets out a series of methodological options, including

secondary analysis of existing census and survey data and new primary data collection. The report emphasizes the need to carefully define objectives and discusses the ways in which different objectives can imply substantially different study designs. It also emphasizes the need for studies which are not only analytically sound, but which will produce information useful to planners and managers at all levels of government. (Author abstract, modified)

112

PN-ABN-496
MF \$1.08/PC \$9.49

Initial assessment of the Albanian housing sector

Mikelsons, Maris; Lowry, Ira S.; Rabenhorst, Carol
Urban Institute

U.S. Agency for International Development. Bur. for
Private Enterprise. Ofc. of Housing and Urban Pro-
grams (Sponsor)

U.S. Agency for International Development. Bur. for
Europe. Regional Housing and Urban Development
Ofc. Eastern Europe (Sponsor)

Jan 1993, [17] p. + 8 annexes: statistical tables, En
From planning to markets: housing in Eastern Europe
Urban Institute [UI] project no. 6251-28

At the request of the Government of Albania, a joint World Bank/USAID housing mission visited Tirana in November 1992 to assess investment and technical assistance needs in the housing sector. This paper summarizes the team's conclusions. The first section outlines the country's political and economic history, concentrating on the current economic situation. The second section describes social and demographic factors. Section three presents an overview of the housing sector, describing the institutional framework, housing characteristics, housing demand and tenure, the construction industry, and the banking system. The final section provides an outline of technical assistance proposed by the World Bank/USAID team to facilitate privatization of Albania's housing stock. Annexes contain discussion of the country's condominium and restitution laws. (Author abstract, modified)

113

PN-ABN-724
MF \$1.08/PC \$2.47

Housing privatization: what should we advocate now?

Kingsley, G. Thomas; Telgarsky, Jeffrey P.
Urban Institute

U.S. Agency for International Development. Bur. for
Europe. Ofc. of Soviet Affairs (Sponsor)

U.S. Agency for International Development. Bur. for
Private Enterprise. Ofc. of Housing and Urban Pro-
grams (Sponsor)

Mar 1993, 16 p., En

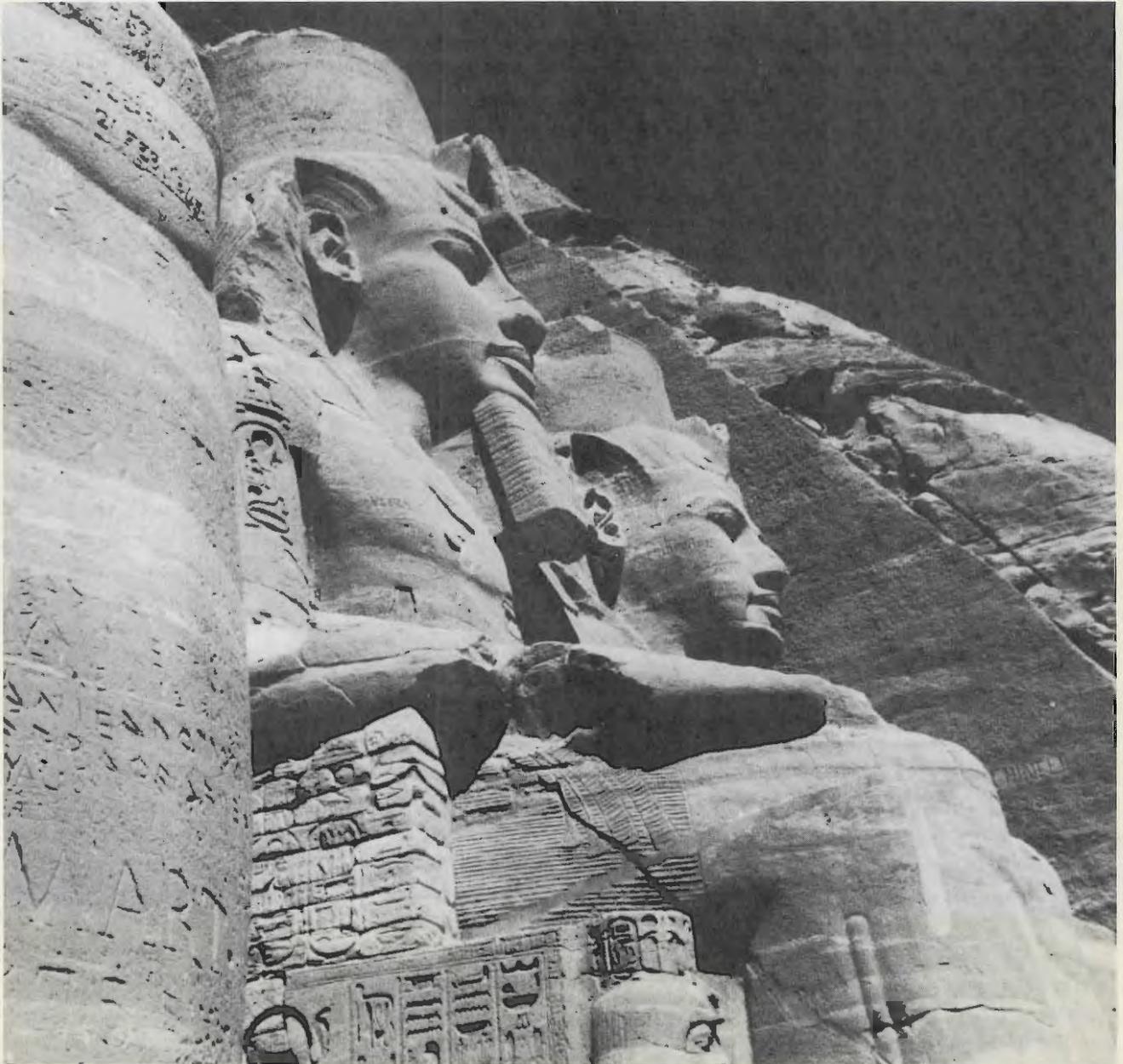
From planning to markets: housing in Eastern Europe
[U.I. (Urban Institute)] project no. 6306-02
1100008

This paper briefly reviews alternative privatization strategies that have been suggested for application in Eastern Europe, as well as the actual performance of privatization to date, and then recommends some guidelines for A.I.D. to follow in the region's present environment. The earliest papers on housing privatization concluded that Eastern European governments should proceed with caution. Early literature also emphasized that a number of policy and institutional changes would be required for the transition to a market oriented housing system. Later views noted that local governments (now in control of the communal stock) recognized that given enormous operating deficits, communal housing is a financial liability. More importantly, the papers in general reflected the growing recognition of the costs of slow privatization in perpetuating the inefficient institutions of the old order. While these theories are instructive, it is important to understand that the governments of Eastern Europe and the New Independent States have gone ahead with housing privatization without following either the "go slow" or "go fast" approaches in their ideal forms. Today, advice given in any country must reflect that country's actual privatization history and the differences in processes and outcomes. Given these theories and experiences, what should we advocate now? Our conclusions are as follows. (1) Going fast wins. A.I.D. should advocate rapid privatization of communal housing everywhere. (2) Popularly elected, local governments are

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appropriate units to make decisions concerning the scope and staging of communal housing privatization. (3) A.I.D. should give priority to policies that place resident-owners in control of their buildings and develop their skills as managers. Privatization that only transfers title without fully transferring management responsibility and control is a sham. (4) A.I.D. should strongly support the adoption of a national housing allowance program in all countries in

the region. (5) There is no need to give the housing away. While prices should not be set so high as to slow the privatization process, charging prices somewhat below that level does provide benefits, e.g., giving buyers more stake in ownership and adding political legitimacy to the process. On the other hand, there is a need for special programs to deal with the "unsalables." (Author abstract)



A view of the Great Temple of Abu Simbel. This and other Nubian monuments were relocated to avoid flooding by Aswan High Dam.

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114

PN-ABN-491
MF \$2.16/PC \$14.82

Profile of the environmental business sector in Egypt

RCG / Hagler, Bailly, Inc.

Chemonics International Consulting Div.

U.S. Agency for International Development. Bur. for
Asia (Sponsor)

Oct 1992, 72 p. + 8 appendices: charts, statistical tables,
En
3980365

Despite limited public awareness in Egypt of the country's serious environmental problems, over 100 environmental businesses (Egyptian and foreign-owned) are already operating in the country. This report assesses existing private environmental business activities and identifies opportunities for investment in the environmental market. The first section highlights the best opportunities in Egypt's environmental business sector and provides an overview of Egypt's environmental problems. The second section provides detailed descriptions of ten specific environmental market segments: (1) air and water monitoring, testing, and analysis equipment and services; (2) municipal water supply and wastewater treatment equipment, design, construction, and operation; (3) industrial wastewater treatment equipment, design, and operation; (4) environmental consulting services, including industrial waste minimization and resource recovery consulting, preparation of environmental impact assessments, policy, regulatory, and economic management consulting, and environmental education and training services; (5) water purification equipment and installation for industrial, commercial, and domestic use; (6) solid waste collection and disposal, including hazardous waste; (7) waste recycling services and equipment; (8) point-source air pollution control design, equipment, and operation; (9) renewable energy conservation; and (10) mobile source air pollution control equipment and services. Each market segment is discussed with regard to products, services, and technologies; potential clients; market demand and supply; competition; ownership; and strategies for and costs of entry. The appendices list organizational resources available to Egyptian and

U.S. businesspeople, including government ministries, foreign chambers of commerce, Egyptian business organizations, U.S. government resources, and USAID business development programs. Also appended are a list of companies and persons interviewed, a bibliography, and information on Egypt's regulatory framework.

115

PN-ABN-811
MF \$1.08/PC \$9.23

Community - based natural resources management: an annotated bibliography

Hamilton, Ann

Chemonics International Consulting Div.

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Economic and
Institutional Development (Sponsor)

Mar 1993, 65 p., En
9365438

Community-based natural resource management in Latin America, Africa, and the Asia-Pacific region is the subject of this annotated bibliography, which focuses on the impact of natural resource strategies and policies on local communities and the extent to which communities can participate in resource management decisions. The bibliography cites a total of 37 essays, articles, books, monographs, and technical documents from PVOs, research institutions, scientific and anthropological journals, universities, environmental and conservation organizations, and international bodies such as the World Bank. Subjects include communal property management, indigenous populations, extractive reserves, protected area management, land tenure, community and social forestry, ecology, ethnobotany, deforestation, desertification, migration, human settlement, biodiversity, conservation, marketing of extractive products, gender issues, and social equity. Each citation includes a full abstract and keywords. (Author abstract, modified)

ENVIRONMENT AND NATURAL RESOURCES

116

***PN-ABP-065**
MF \$1.08/PC \$4.42

Papua New Guinea conservation needs assessment: synopsis report

Swartzendruber, J. F.
World Wildlife Fund - U.S.
Nature Conservancy
World Resources Institute
Papua New Guinea. Dept. of Conservation and Environment (Sponsor)
U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Environment and Natural Resources (Sponsor)
U.S. Agency for International Development. Bur. for Asia. South Pacific Regional Development Ofc. (Sponsor)
1993, xii, 24 p.: ill., maps, En
Complete text: PN-ABN-952
9365554
**Also available from: Biodiversity Support Program, World Wildlife Fund, 1250 24th St. NW, Washington, DC 20037 USA*

While most of the resource rich landscape of Papua New Guinea has thus far escaped serious degradation, threats to the country's terrestrial and marine ecosystems are growing. This report summarizes in three sections the results of a conservation needs assessment (CNA) conducted of Papua New Guinea in 1992 by USAID, NGOs, the government, landowners, and scientists. An initial section assesses the present state of knowledge, conditions, trends, and environmental threats to Papua New Guinea's natural resource base. A second section contains biodiversity maps which identify sites of particularly high endemism and species richness, as well as unusual ecosystems and habitats; rather than conclusive assessments, the maps are considered to be "works in progress" to be used as tools for further research. Finally, recommendations for future sustainable development made at a CNA workshop are presented — each of these is reflective of the collaborative forum in which they were reached and centers on the urgent need for a more participatory approach toward sustainable

development — primarily through strengthened relationships between landowners and developers and policymakers.

117

***PN-ABP-066**
MF \$2.16/PC \$15.47

Central Africa: global climate change and development—overview

World Wildlife Fund-U.S.
Nature Conservancy
World Resources Institute
U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Environment and Natural Resources (Sponsor)
U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)
1993, 108 p.: ill., charts, maps, statistical tables, En
Synopsis: PN-ABL-401
Technical report: PN-ABP-067
6980467; 9365554
**Also available from: Biodiversity Support Program / Africa, World Wildlife Fund, 1250 24th St. NW, Washington, DC 20037 USA*

Central Africa's moist tropical forest and surrounding seasonal woodlands constitute the greatest potential source of future greenhouse gas emissions from sub-Saharan Africa. This report summarizes three U.S.-based desk studies, focusing on six Central African countries — Cameroon, Central African Republic, Congo, Equatorial Guinea, Gabon, and Zaire — which together contain the second largest contiguous expanse of moist tropical forest in the world. The current state of Central Africa's forests, greenhouse gas emissions from deforestation and savannah burning in the region, and the potential impacts of global climate change on the region are discussed first. This is followed by an overview of the socioeconomic factors underlying human use of the forest, and causal relationships between policy, demographics, economics, and land-use change. A final section outlines the role of remote sensing and Geographic Information Systems in

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managing and analyzing data for regional climate change research. Study findings show that greenhouse gas emissions from the region are currently small, but could become significant if deforestation rates accelerate. If global climate change does increase, it is likely to have broad, damaging impacts on the environment and peoples of Central Africa. Right now, the region's relatively intact forests provide policymakers with a unique opportunity to apply effective forest management strategies and avoid the social, economic, and environmental costs of forest loss and degradation. Includes 19-page bibliography.

118

***PN-ABP-070**

MF \$8.64/PC \$92.95

Sustainable agriculture and the environment in the humid tropics

National Research Council. Committee on Sustainable Agriculture and the Environment in the Humid Tropics

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Environment and Natural Resources (Sponsor)

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Research (Sponsor)

1993, xv, 702 p.: ill., charts, maps, statistical tables, En
Published by: National Academy Press
9365545

**Also available from: National Academy of Sciences, 2101 Constitution Ave. NW, Washington, DC 20418 USA*

In March 1990 at USAID's request the National Research Council convened a 15-member multidisciplinary committee to study sustainable agriculture in the humid tropics. This report presents the committee's findings on the problem of tropical deforestation and outlines a variety of approaches to tropical land use and conservation, each designed to fit a specific environmental, social, and market context. The report is presented in two sections. Section I examines land use in the humid tropics, the consequences of deforestation, technical research needs, and policy needs.

In general, the committee concludes that (1) many degraded tropical lands have the potential to be restored; (2) the land use systems employed in the humid tropics range from those only mildly disruptive to the environment to those that are severely degrading (e.g., forest clearing); and (3) some locales are successfully shifting their economic growth base from activities based on forest harvesting to a more diversified economy that includes substantial non-farm employment. Section I includes a land use options scheme, which defines twelve categories ranging from highly managed intensive cultivation to forest reserves, and an accompanying table to help decisionmakers (from the local to the national level) identify appropriate options for their regions. A discussion of greenhouse gas emissions associated with land use change is appended. Section II contains profiles of agricultural practices and environmental issues in Brazil, Cote d'Ivoire, Indonesia, Malaysia, Mexico, the Philippines, and Zaire.

119

PN-ABP-172

MF \$1.08/PC \$5.20

Towards a sustainable future for Africa: improved natural resources management under the Development Fund for Africa, 1987 to 1993

U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support

Apr 1993, 39 p.: ill., charts, statistical tables, En
ARTS technical paper, no. 5
6980478

Since 1987, A.I.D.'s Development Fund for Africa (DFA) has provided over \$300 million to programs supporting environmentally sound development in Africa. The programs have focused on three priority areas — sustainable agriculture, tropical forestry, and biodiversity — and have been directed not, as in the past, at helping individual farmers but at promoting the systemic institutional, technical, economic, and political changes needed to support improved natural resource management. This report outlines and exemplifies experiences and successes

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to date under the DFA and the Africa Bureau's Plan for Supporting Natural Resources in Sub-Saharan Africa. The programs described are often multifaceted; they support the work of PVO's at the community level, provide technical assistance to government agencies and others involved in managing the natural resource base, support host-country initiatives in natural resource planning and management, and provide incentives for changing underlying policies such as land tenure. A major initiative has been support for the National Environmental Action Plan (NEAP) process in Madagascar (the originating country of the NEAP concept), Uganda, The Gambia, and Rwanda. The report also notes work underway to support other U.S. concerns such as the protection of elephant habitats and the mitigation of global climate change. A concluding series of country examples documents what is possible when donors work together with Africans to promote sustainable development. The key lesson for both is the need for patience and long-term planning. To seek short-term results while ignoring underlying conditions is bound to fail.

120

PN-ABP-173
MF \$1.08/PC \$3.51

Dryland management and the USAID response in Africa: combating desertification through development

Thomas, Stryk; Gaudet, John
U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support
May 1993, 28 p., En
ARTS technical paper, no. 6

Over the past several years, A.I.D. has carried out numerous projects to combat desertification, i.e., to improve the management of dryland resources such as soils, forests, and range and water resources. Many of these projects were designed as a result of experience gained during the 1983-84 drought in Africa. In addition, A.I.D. has conducted an extraordinary number of studies and evaluations of desertification and has analyzed 70 promising natural resource management initiatives in Niger,

Mali, Senegal, and The Gambia. This experience indicates that desertification is a complex problem, capable of being halted by no single strategy, but also that a sufficient range of technically proven and economically attractive interventions are available. The chief limiting factor is no longer technology, but its widespread adoption, an effort in which donors and the public sector have important extension, technical assistance, and management roles to play. Even successful programs, however, are not likely to bear fruit for at least 20 years. The coordination of national efforts towards dryland management has been made a priority by Agenda 21 of the U.N. Conference on Environment and Development; this coordination could be achieved by incorporating national Plans of Action to Combat Desertification (PACD's) into National Environmental Action Plans (NEAP's). The NEAP's, in turn, could be especially useful in providing a framework within which NGO/PVO and regional/village level participation would be encouraged.

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PN-ABP-183
MF \$2.16/PC \$14.82

Natural resources management and program food aid in Niger: an initial analysis of linkages

Catterson, Thomas; Wilson, Wendy; et al.
Abt Associates, Inc.
U.S. Agency for International Development. Bur. for Africa. Niger (Sponsor)
U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Agriculture (Sponsor)
Mar 1993, 83 p. + 3 appendices: statistical tables, En APAP [agricultural policy analysis project, phase] II technical report, no. 129
9364084

While numerous studies have addressed the impact of food aid on agricultural productivity and farmer/consumer motivation, few if any have looked at the linkages between food aid and natural resource management (NRM). This study examines such linkages in Niger, and also assesses

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whether food aid has come to play a causal role in inducing people to remain on marginal lands. The study focuses on Food for Work (FFW), which has been used extensively throughout Niger for 20 years or more as a means to achieve natural resource objectives, primarily the rehabilitation of degraded lands. The typical FFW/NRM model is one of workers constructing rock walls or digging infiltration trenches. The majority of the workers are women, although children too take an active part in carrying out the arduous work requirements. A day's work yields a day's ration, i.e., enough cereal and other foods to feed five people for a day. USAID, both directly and through the World Food Program, is the major donor.

Most FFW projects are performed on common lands. Plans to put rehabilitated sites back into agricultural production are fraught with difficulties, and it appears that FFW's rehabilitation achievements will be transitory at best. Moreover, the activities are adding to tensions between agriculture and pastoralism in many areas. And the cost is high: although the annual FFW/NRM expenditures are equivalent to approximately 50% of direct NRM investments, the total area treated annually (10,000-15,000 ha) cannot begin to satisfy the need. The average treatment cost per ha (even without counting food shipping and handling) is almost \$500. Of even more concern are the unfortunate precedents being established that will affect the way NRM activities are undertaken in the future. These include: high investment costs on marginal lands; the notion that soil and water conservation means jobs; little effort at real participation; the inequities of the gang labor approach; and the belief that land rehabilitation is the purview of the state. The FFW projects seem like archaic throwbacks to the early 1980's when the mania for tree planting was seen as the solution to the problem of desertification. Few FFW projects have experimented with alternatives to food aid or other approaches that might enhance the participation of workers. Local staff are inhibited from doing so because of the demanding quantitative targets they must meet for land treated and food delivered. Working in this context, staff easily lose sight of workers as participants in development — they become instead impediments to getting the job done. These subtle mindsets have important implications for the Government of Niger's new "Principes Directeurs" — its plan to promote participatory development and reduce the role of the State. Given such problems, urgent attention needs to be

given to the links between food aid, development, and NRM in Niger, including the issue of benefit sustainability. The report concludes by making some suggestions for actions by USAID and WFP.

122

PN-ABP-250
MF \$2.16/PC \$14.43

West and Central Africa regional environmental law study

Gibson, J. Eugene; Laurent, Jean Claude
International Resources Group, Ltd.
U.S. Agency for International Development. Bur. for
Africa. Regional Economic Development Services
Ofc. West and Central Africa (Sponsor)
Jun 1992, 108 p., En
Delivery order no. 6
9365517

Inadequate laws constitute a major hurdle to environmental protection and natural resource management in West and Central Africa. This report presents baseline data on national, state, local, and customary environmental laws as background for efforts at legal reform. Section 2 provides an overview of the legal environment, while Section 3 examines the type of deficiencies common to environmental laws in the region and the reason these laws have not been effectively enforced. Section 4 provides an overview of the lawmaking process and the roles of the executive, legislative, and judicial branches of government in this process. Section 5 examines the management framework and institutional arrangements for environmental protection and natural resource management, the public's role via community groups and NGOs, and environmental impact assessment requirements. Section 6, the lengthiest, provides a country-specific survey of the status of environmental laws and their enforcement (including recommendations for improvement) in regard to land, water, plants and animals, waste disposal, hazardous and toxic substances, fertilizer and pesticides, mining, energy, and industry. The countries covered include Ghana, Nigeria, The Gambia, Cameroon, Ivory Coast, Mali, Niger, and Senegal. Section 7 identifies policy and legal reforms these

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countries could undertake and the type of institutional strengthening required. It reviews initiatives to promote public participation and opportunities for environmental education and training and concludes with a discussion of regulatory and enforcement mechanisms. The recommendations are generic in nature and will need to be tailored to the needs and conditions in each country. (Author abstract, modified)

123

PN-ABP-289
MF \$1.08/PC \$3.38

Gender, cash cropping, and land purchase programs in Guatemala

Irvin, Carol V.

University of Wisconsin at Madison. Land Tenure Center

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Women in Development (Sponsor)

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Economic and Institutional Development (Sponsor)

Mar 1993, v, 23 p.: statistical tables, En
LTC paper, no. 148

9365453

In 1985, the Penny Foundation (FUNDACEN), with USAID funding, initiated a land purchase program in Guatemala. The program differs from other land purchase programs, e.g., those of the Instituto Nacional de Transformacion Agraria (INTA) and the Asociacion Nacional de Campesinos Pro-Tierra (ANACAMPRO), in requiring beneficiaries to cultivate a cash crop (usually coffee). This report presents univariate and multivariate analyses of survey data on all three programs in order to show the impact of coffee cultivation on beneficiary households in general and female household heads in particular. Results show that coffee production, which is by nature labor-intensive, appears to increase the extent of the female head's agricultural labor both absolutely and as a percentage of total family labor supply. By adding one more responsibility for the female head of household,

coffee production may cause severe time constraints for many beneficiary women. A key policy implication is that FUNDACEN's cash cropping requirement may reduce the time women can devote to child care and household maintenance and thereby reduce the quality of life of beneficiary families.

124

PN-ABP-337
MF \$2.16/PC \$13.65

Mobilizing Morocco's private sector for environmental management

Gorden, Morton; Crossetti, Michael; Krantz, Tibor
Chemonics International Consulting Div.

U.S. Agency for International Development. Bur. for Near East. Ofc. of Development Resources (Sponsor)

U.S. Agency for International Development. Bur. for Near East. Morocco (Sponsor)

Jan 1993, iii, 48 p. + 5 appendices, En
3980365

Morocco's environmental problems are best described as natural resource shortages greatly aggravated by pollution. The most significant shortage is of water. There would not be sufficient quantities of water to dilute discharges into rivers even if dilution were an acceptable strategy. Forty percent of the country's drinking water comes from groundwater, a source that is being polluted. Expensive treatment is required before polluted water can be reused. The high cost and impractical nature of water treatment exacerbates the problem. However, Morocco's growing resource shortages are casting doubts on the current strategy of postponing waste management and devoting efforts solely toward investment promotion. An alternative strategy — involving environmental private sector companies in prevention and clean up — is recommended here. Morocco has a private sector that can provide environmental solutions and pollution prevention services. Over 100 companies are already involved in the environmental business. The environmental management functions needed to help prevent further damage are being established, although incentives are needed to expand their availability. Environmental norms that set targets for in-

dustry and environmental management roles need to be established, according to managers interviewed in a survey of Morocco's environmental private sector conducted for this report. These measures will help create a market

Forty percent of Morocco's drinking water comes from groundwater, a source that is being polluted. Growing water shortages are casting doubts on the current strategy of postponing waste management activities in favor of investment promotion programs.

within which the private sector can work to solve environmental problems. This report suggests a number of environmental management strategies that can make sustainable economic growth possible. The report also describes several demonstration projects to show how private sector capabilities can be employed in environmental management. To demonstrate how to harmonize regional economic development with a sustainable national economy, the report introduces a waste management plan for Safi. The plan calls for industrial audits to minimize waste and prevent pollution. In addition, it outlines how to combine industrial wastes of high heat content with municipal wastes that are too moist in a cogeneration plant that provides steam and electricity. The revenue from such a plant could be used to safely dispose of wastes that cannot be eliminated from the industrial processes in the region. The report outlines another demonstration project that would collect revenue from ecotourists visiting the National Park of Souss-Massa in order to help preserve the park and provide employment for its nearby residents. Finally, the report provides a design for an environmental loan fund to leverage donor and World Bank funds as a means of enlisting the private sector in environmental management. The fund would use private loans for public purposes. These projects demonstrate how to overcome the alleged conflict between sustainable economic growth and environmental management. (Author abstract)

125

PN-ABP-484
MF \$2.16/PC \$23.66

Vetiver grass: a thin green line against erosion

National Research Council. Ofc. of International Affairs. Board on Science and Technology for International Development

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Research (Sponsor)

World Bank. Dept. of Environment. Policy and Research Div. (Sponsor)

World Bank. Dept. of Agriculture and Rural Development (Sponsor)

U.S. Dept. of Agriculture. Soil Conservation Service (Sponsor)

1993, xiv, 171 p.: ill., En

Published by: National Academy Press
9365545

Vetiver, a deeply rooting, persistent tropical grass, has for decades been used to control erosion at sites in Fiji, India, and the Caribbean. Planted in lines along the contours of sloping lands, vetiver quickly forms narrow but very dense hedges, where its stiff foliage blocks the passage of soil and debris. It also slows runoff and gives rainfall a better chance of soaking into the soil instead of rushing off the slope. At present, however, no one knows whether vetiver might offer a practical solution to erosion worldwide. This report provides a preliminary assessment of the plant's safety and effectiveness for erosion control. The report, based on a literature review, personal contacts, site visits, and correspondence with experts in agronomy, forestry, soil science, engineering, and other fields: (1) summarizes worldwide experiences with vetiver, including case studies from the United States, St. Lucia, India, Malaysia, South Africa, and Madagascar, concluding that vetiver, while not a panacea, offers great promise and should be subject to field trials without delay; (2) responds to 22 concerns commonly raised about vetiver; (3) provides technical information on the plant, its physiology, and ecology; and (4) identifies actions to expand vetiver use in an orderly, responsible, yet rapid manner. Extensive

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appendices provide: erosion "horror stories" (and how vetiver might have prevented them); information on other tropical grasses with similar potential for erosion control; a bibliography; and a list of research contacts.

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***PN-ABP-611**
MF \$2.16/PC \$18.07

Resource ecology of the Bolinao coral reef system

McManus, John W.; Nanola, Cleto L., Jr.; et al.
Association of Southeast Asian Nations
International Center for Living Aquatic Resources
Management
University of Rhode Island. International Center for
Marine Resource Development
University of the Philippines at Diliman. Marine Science
Institute
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Agriculture
(Sponsor)
1992, xviii, 117 p.: ill., charts, statistical tables, En
4980286; 9311050
**Also available from: International Center for Living
Aquatic Resources Management, MC P.O. Box 1501
Makati, 1299 Metro Manila, Philippines*

The coastal area of western Luzon, the Philippines, is suffering serious environmental damage due to population and economic pressures. This study focuses on the reef system outlying Bolinao, and incorporates socioeconomic and scientific data to develop a comprehensive management plan for use by the local community and by similar communities in other tropical countries. Individual chapters cover: harvesting activities on the reef slope and flat; estimates of fish species diversity and overall abundance, and the negative impacts of fish harvesting; ways to reduce fishing intensity, and estimates of sustainable harvest rates; the outline of a proposed marine reserve/park system, to be set aside as a nonfishing area to serve as a protected breeding ground, migration route, and nursery; and action recommendations. The study advises that harvesting rates be reduced at least 60% and that particularly

destructive and dangerous practices, such as blast and cyanide fishing and compressor diving, be banned completely. Emphasis must be placed on developing the reef's tourist potential, finding alternative employment for displaced fishers, reducing wastage in fish processing operations, and slowing the region's rate of population growth. Continuation of the current pattern of overfishing under conditions of rapid population growth and growing poverty (a situation known as Malthusian overfishing) will result, in the not too distant future, in the elimination of the resource on which so many people depend.

127

PN-ABP-624
MF \$1.08/PC \$2.99

Cost of reducing carbon emissions in developing countries: evidence from Colombia

Linden, Gary
U.S. Agency for International Development. Bur. for
Latin America and the Caribbean
U.S. Agency for International Development. Bur. for
Latin America and the Caribbean
Jun 1993, 20 p.: charts, En
Staff working papers / U.S. Agency for International
Development, Bureau for Latin American and the
Caribbean, no. 9

In the coming decades, the most significant increases in carbon dioxide emissions, a key factor in global warming, are likely to take place in the energy sectors of developing countries. While shifting to technologies that emit less carbon dioxide could alleviate this problem, such technologies are much more costly than those now in use. This paper combines an econometric model of energy demand with a mathematical programming model of commercial energy supplies to analyze energy-environmental linkages in Colombia. The integrated model, which could be modified to include the emissions of other greenhouse gases such as nitrous oxide, allows the use of carbon dioxide emission constraints that apply simultaneously to the entire energy sector, thus permitting the model to choose a least-cost approach to any emission reduction program.

Key conclusions are that (1) the costs of reducing carbon dioxide emissions in Colombia are high, and (2) these costs appear to conform to patterns established for industrially developed countries. These cost estimates raise questions about the practicality of reduction programs in developing countries such as Colombia, where resources might be better used to meet economic, social, or other environmental problems. Additionally, a reduction program would substantially alter Colombia's energy sector. Domestic coal producers, which provide thousands of jobs in the interior, would shrink dramatically, while the natural gas and hydroelectric sectors would make major gains. Further dependence on hydroelectricity, however, would increase Colombia's vulnerability to drought such as devastated the country in 1992.

128

***PN-ABQ-057**
MF \$2.16/PC \$22.10

African biodiversity: foundation for the future — a framework for integrating biodiversity conservation and sustainable development

Almquist, Alden; Deshmukh, Ian; et al.

World Wildlife Fund - U.S.

Nature Conservancy

World Resources Institute

U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Environment and Natural Resources (Sponsor)

1993, xxi, 149 p., En

6980467; 9365554

**Also available from: Biodiversity Support Program / Africa, World Wildlife Fund, 1250 24th St. NW, Washington, DC 20037 USA*

Access to diverse biological resources — animal and plant, marine and terrestrial — which is a fundamental requirement for survival in most African communities, is being threatened by the use of unsustainable production

practices. This report suggests a series of practical (but by no means simple steps) that African governments and NGOs can take to reverse this trend by linking sustainable development and biodiversity conservation. The report is divided into two parts. Part I presents an overview of the challenges Africans face in conserving their biological heritage and proposes a framework of recommendations and actions to address those challenges. Part II fills out this framework through an in-depth discussion of critical biological diversity issues, including: (1) ways to improve biodiversity conservation by incorporating African social, economic, and other values; (2) the importance of traditional knowledge of the environment, with emphasis on the role of women; (3) new approaches to biodiversity conservation which combine the best aspects of traditional and modern systems, with emphasis on land use planning techniques; (4) the effect on biodiversity of national and international policies concerning land tenure, export promotion, and intellectual property rights; (5) the importance of incorporating local resource users into biodiversity conservation efforts, and ways of achieving this; (6) opportunities for advancing biodiversity conservation through information sharing and the development of Africa's human resources; and (7) techniques for improving project management and accountability, along with specific constraints and opportunities in this sphere.

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PN-ABQ-059
MF \$1.08/PC \$9.75

Non-governmental organizations and natural resources management in Africa's pastoral sector: where to go from here? — a synthesis document

Brown, Michael; O'Connor, Kerry, ed.
World Learning Inc.
World Wildlife Fund - U.S.
Cooperative for American Relief Everywhere, Inc.
U.S. Agency for International Development, Bur. for Africa. Ofc. of Technical Resources (Sponsor)
U.S. Agency for International Development, Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)
Aug 1993, 76 p., En
6980467

The PVO-NGO/Natural Resource Management Support project has studied the impact of NGO programming in Africa's pastoral sector. Based on information from three project assessment reports (covering Ethiopia, Kenya, and Mali) and a workshop, this report provides an overview of African pastoralism and examines NGO experiences in the pastoral sector, both good and bad. One underlying theme that unites the assessments and workshop activities is that NGOs can play an increasingly important role in the pastoral sector, given recent retrenchments by governments and most major donors; this is particularly true in the area of advocacy and awareness raising. However, NGOs—while maintaining their enthusiasm for pastoral rights—must strengthen their technical and analytic capacity to more objectively assess pastoral issues and evaluate where opportunities for refining systems exist or alternative courses of action may be appropriate. Research and technical analysis of how pastoralists can adapt organizationally to meet the ecological and political challenges to their environment remain a priority. Annexes to the report contain extracts from the documents referenced, as well as case study presentations by NGOs for the workshop, along with a bibliography.

130

PN-ABQ-096
MF \$2.16/PC \$13.91

Implementing natural resources management policy in Africa: an annotated bibliography

Brinkerhoff, Derick W.; Gage, James D.; Clifford, Veronica
Management Systems International, Inc.
University of Maryland at College Park. Colleges of Agriculture and Life Sciences. Ofc. of International Programs. International Development Management Center
Abt Associates, Inc.
Development Alternatives, Inc. (Sponsor)
U.S. Agency for International Development, Bur. for Research and Development, Ofc. of Economic and Institutional Development (Sponsor)
U.S. Agency for International Development, Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)
Sep 1992, 107 p., En
IPC [implementing policy change] bibliography, no. 2
9365451

Several features of natural resource management (NRM) policies make implementation difficult. These include the inherent contradiction between sustainable NRM and the economic development paradigm, the tendency for NRM to generate conflict among opposing interest groups, the need to pay now for benefits which will only be seen over the long term, and the proscriptive nature of NRM regulations (as well as the opportunities for corruption present in selective enforcement). This annotated bibliography cites over 90 sources that address these problems, with an emphasis on publications dealing with Africa. Each citation includes a full abstract which summarizes the original work, provides examples of its arguments, findings, and conclusions, and highlights recommendations pertinent to the NRM activities of developing country policymakers and implementors and international donors. The bibliogra-

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phy is a companion to "Implementing Natural Resources Management Policy in Africa: A Document and Literature Review" (PN-ABM-189).

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PN-ABQ-176

MF \$1.08/PC \$8.71

Integrated assessment of hazardous waste management in Botswana

Convard, Nancy S.; O'Toole, Laurence J.
Camp Dresser and McKee, Inc.
U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Health (Sponsor)
U.S. Agency for International Development. Bur. for
Africa. Botswana (Sponsor)
Oct 1993, xii, 65 p., En
9365973

Botswana's management of hazardous and toxic waste — waste oil, petroleum products, solvents, heavy metals, organochlorine and organophosphate pesticides, acids, alkalis, medical wastes — is examined using an integrated environmental assessment. The study reveals that Botswana has little reliable information on the quantity of hazardous waste generated. Primary generating activities include vehicle and equipment maintenance, paint manufacturing, pesticide use, mining, tanning, dry cleaning, medical care, and timber treatment. Only a small fraction of the waste generated by these activities receives safe treatment, storage, and disposal. As a rule, waste oil is dumped in sewers, storm drains, on the ground, at the local dump, and on generators' own plots, or even, as at the motor racing track in Gaborone, sprayed on the ground for dust control. Chemical wastes are typically poured down the sewer or dumped at landfills. Medical waste is incinerated along with general wastes and then landfilled, or directly landfilled without treatment. The environmental or health effects of hazardous wastes in Botswana are seldom documented, but there is alarming evidence of water contamination and of toxic upsets at sewage facilities. While there are numerous laws and regulations guiding the management of hazardous wastes, Botswana still lacks a specific policy on tracking them, designating acceptable disposal options,

monitoring and enforcement, or educating the public. The institutional setting for policy and its implementation is quite complex, and hampered by limited resources and a lack of coordination. A series of technical and policy changes for managing hazardous wastes are detailed in this report.

132

PN-ABQ-241

MF \$1.08/PC \$11.83

Analysis of 10 African natural resources management practices

Erdmann, Thomas K.
U.S. Agency for International Development. Bur. for
Africa. Ofc. of Analysis, Research and Technical
Support (Sponsor)
Oct 1993, x, 84 p., En
ARTS technical paper, no. 8
9365556

Ten natural resource management practices/technologies (P/Ts) — interventions having a direct physical impact on the natural resource base — in use in Africa are analyzed. The analysis mainly follows a framework developed by A.I.D.'s Africa Bureau, which focuses on factors contributing to P/T adoption, rates of adoption, and biophysical, productivity, and income impacts. The P/Ts analyzed are: physical contour barriers (Burkina Faso, Mali, Somalia); home gardens (Tanzania, Nigeria, Ghana); biological contour barriers (Uganda, Rwanda, Tanzania); natural forest management/extractive reserves (Niger, Burkina Faso, Ghana); game ranching (Burkina Faso); woodlots and multipurpose tree gardens (Senegal, Mali, Niger); community-based wildlife management (Zimbabwe); ecotourism (Uganda, Rwanda, Kenya); windbreaks (Niger, Mali); and improved fallow (Zambia, Benin, Nigeria). A case study of a farmer who used several P/T's in the Operation Haute Vallee project zone of Mali is also described. A final section weighs the pro's and con's of the analytical framework and examines the issues of P/T sustainability and impact monitoring. Includes bibliography.

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PN-ABQ-242
MF \$1.08/PC \$6.63

Recent reform in natural resources management in Africa: trends in the roles of public-sector institutions — phase II: final report

Zimmerman, R. C.

U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support

Oct 1993, xiv, 38 p., En

ARTS technical paper, no. 9

6980478; 9365556

Natural resource management (NRM) in Africa is being pursued in a variety of ways. This report uses an 18-part framework developed by A.I.D.'s Africa Bureau to analyze the roles and functioning of African public sector institutions in NRM. According to the framework: (1) the roles of public NRM agencies include setting the policy and legislative rules, providing information and technical assistance in collaboration with the private sector, monitoring the state and use of resources, mediating among competing interests, enforcing rules and technical standards, conducting research, providing infrastructure, and owning/managing those resources where the public long-term interest clearly predominates; and (2) the functions of these agencies address issues of linkages, recurrent costs, programming and budgeting, salaries, resource pricing, procurement, administration, and the definition of resource management norms and mandates. Applying the framework to data from The Gambia and Madagascar, the report assesses NRM reforms associated with nonproject assistance, National Environmental Action Plans, NRM institution building projects, and the devolution of NRM authority to local communities. While progress is being made in some areas in the framework, the report indicates that the most intractable problems in NRM are: failure to prevent the degradation of diffuse natural resources (as opposed to fair success in protecting designated areas); inadequate operating budgets; low salaries; inefficient and corrupt procurement systems; and especially, chronic or-

ganizational weaknesses—which may be so deeply rooted in local culture as to require more sociologically sophisticated approaches to change than have been applied so far.

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PN-ABN-810
MF \$1.08/PC \$9.62

Surviving the cut: natural forest management in the humid tropics

Johnson, Nels; Cabarle, Bruce

World Resources Institute

U.S. Agency for International Development. Bur. for Research and Development (Sponsor)

U.S. Agency for International Development. Bur. for Latin America and the Caribbean (Sponsor)

Feb 1993, viii, 71 p.: statistical tables, En

From Siberia to Amazonia, forests everywhere are in trouble, with tropical forests vanishing at the rate of 17 million hectares a year and temperate forests seriously degraded by pollution and overharvesting. One of the most vexing questions is whether sustainable forestry is possible in natural forests. The authors of this study analyze past forest management failures and chart a path toward more productive, sustainable, and equitable practices. They argue that a narrow focus on sustained timber yields often leads to failure. A project may be producing trees sustainably, for instance, but if timber is all that counts, species diversity may plummet and watersheds deteriorate almost without notice. To ensure a steady stream of valued forest products, the management goal must be to maintain the health of entire forest ecosystems and the well-being of local communities—whether in the Pacific Northwest or Southeast Asia. The authors maintain that development theorists and practitioners have paid too little attention to the social, economic, and political dimensions of forest management, making it hard to gauge the sustainability of one practice or another. Besides analyzing the sometimes counterproductive effects of bans and boycotts, the authors provide criteria for rating various timber certification proposals. As they note, governments own or control nearly 80% of tropical forests, so these forests stand or fall accordingly to government policy. In the end, the authors

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call for a redefinition of natural forest management, bidding nations to take these steps towards sustainable forestry and enduring economic development. Includes 6-page bibliography. (Author abstract, modified)

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PN-ABN-878

MF \$2.16/PC \$23.92

Forest pests in Central America: handbook

Tropical Agriculture Research and Training Center
U.S. Dept. of Agriculture. Forest Service (Sponsor)
U.S. Agency for International Development. Bur. for
Latin America and the Caribbean. Regional Ofc. for
Central American Programs (Sponsor)

1992, xiv, 179 p.: ill., En

Technical series. Technical manual / Tropical Agriculture Research and Training Center (CATIE), no. 3

Related document: PN-ABN-879

5960150

Tree pests and diseases are major threats to the developing silviculture and forestry industry in Central America. This handbook, produced under the A.I.D.-supported MADELENA project as a companion to a simpler field guide on the subject (PN-ABN-879), presents detailed information on the identification and control of pests of priority tree species in the region. Chapter one reviews the taxonomy, life cycles, and identification of harmful insects, fungi, bacteria, nematodes, viruses, and parasitic plants, and also points out harmful abiotic factors (e.g., mineral imbalances, improper soil humidity, wind, etc.). Chapter two focuses on damage caused to different plant parts (e.g., reproductive structures, roots, foliage) by animals and pathogens. The two chapters include many diagrams and photographs of insects, pathogens, damage, etc. The next two chapters cover pest management. Chapter three discusses preventative measures (such as proper site selection and quarantining); non-pesticidal remedial measures (such as pruning, thinning, isolation, biological control, use of insect pheromone attractants or repellents, and trapping); and post-control measures to prevent relapses. Chapter four focuses on pesticides, covering types of

pesticides, formulation, application equipment, and side effects and safety; guidelines for pesticide use are included. Finally, Chapter five provides directions for evaluating damage caused by pests and for collecting and preparing samples; a reproducible form for reporting on plant health problems is provided. Includes references.

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PN-ABN-879

MF \$3.24/PC \$33.54

Forest pests in Central America: field guide

Tropical Agriculture Research and Training Center
U.S. Dept. of Agriculture. Forest Service (Sponsor)
U.S. Agency for International Development. Bur. for
Latin America and the Caribbean. Regional Ofc. for
Central American Programs (Sponsor)

1992, xix, 264 p.: ill., En

Technical series. Technical manual / Tropical Agriculture Research and Training Center (CATIE), no. 4

Related document: PN-ABN-878

5960150

In Central America, plant health problems have grown to an unprecedented level during the past few years along with the establishment of extensive homogeneous forest plantations, at times leading to such drastic "solutions" as widespread felling of trees or massive use of pesticides. This field guide on forest pests was commissioned by the Multipurpose Tree Crop Dissemination (MADELENA) project and focuses on pests found in Costa Rica, home of PIROF (Programa Interinstitucional de Proteccion Forestal), a pioneer in forest pest research. The guide offers fast identification of forest pests and some general information on their biology and epidemiology. It consists of two sections: (1) lists of the specific pests (insects, vertebrates, pathogens, and parasites) of 18 priority forest tree species, and lists of the specific tree part or developmental stage (e.g., buds and shoots, foliage, trunks, seedlings) they afflict; and (2) lengthier monographs, which provide biological and epidemiological information on the pests and the damage they produce. The monographs also discuss pests which might pose a problem for Central

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America in the future, and each includes a bibliography. The guide complements a handbook (PN-ABN-878), also prepared under the MADELENA project, which presents information on forest pests in greater depth.

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PN-ABP-558

MF \$3.24/PC \$33.41

Tropical forest conservation and development: a bibliography

Albrecht, Jean
Midwest Universities Consortium for International Activities, Inc.
University of Wisconsin at Madison
U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Environment and Natural Resources (Sponsor)
1993, 250 p., En
EPAT / MUCIA manual, no. 1
9365555

The literature relating to the conservation and sustainable development of tropical rain forests is by nature interdisciplinary. This bibliography pulls together literature from the various relevant disciplines, citing 1,757 publications, each with a brief annotation. The citations are grouped by broad subject areas, including: forest resources; deforestation; conservation and sustainable development; indigenous peoples; management, policy, and planning; trade and industrial development; nontimber forest products; research, education, and training; history; and bibliographies and general works. An author index is included. All the publications cited are in the collections of the University of Minnesota libraries, and the bibliography is accessible electronically through Internet.

138

PN-ABP-788

MF \$2.16/PC \$17.94

Directory of selected tropical forestry journals and newsletters

Haugen, Christine; Durst, Patrick B.; Freed, Elisabeth
U.S. Dept. of Agriculture. Forest Service
U.S. Dept. of Agriculture. Ofc. of International Cooperation and Development
International Society of Tropical Foresters
Society of American Foresters
U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Environment and Natural Resources (Sponsor)
Jan 1993, viii, 127 p., En
9365556

Heightened public and professional interest in tropical forestry has led in recent years to a large increase in the volume of information produced on the subject. This directory catalogues and describes 473 tropical forestry periodicals, ranging from scientific journals to informal newsletters. Entries are arranged alphabetically and provide information on each journal's focus, audience, language, frequency of publication, availability, and cost, as well as address, and telephone, fax, and telex number. Includes subject, geographic, and language indexes.

139

PN-ABP-793
MF \$1.08/PC \$7.93

Gender-specific features in forest and tree uses in South and Southeast Asia

Wickramasinghe, Anoja

Winrock International. Institute for Agricultural Development

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Environment and Natural Resources (Sponsor)

1993, 59 p.: statistical tables, En

Multipurpose tree species network research series, no. 19

9365547

People use forest and tree products for many purposes. This study analyzes gender-specific patterns in the household collection and use of forest/tree products in South and Southeast Asia, using data from 26 communities in Bangladesh, Indonesia, Nepal, Philippines, Sri Lanka, and Thailand. The analysis, which is conducted at the regional, country, and community levels, concentrates primarily on two patterns: (1) behavior of men and women engaged as collectors of forest and tree products; and (2) gender patterns relating to the sources of products (e.g., government forests, private forests, home gardens). Men and women were found to behave differently in each of the studied communities. While home gardens and scattered trees on farms are the primary sources of supply for both sexes, men are more likely to use off-farm sources and purchased products as well. Women place higher priorities on products satisfying subsistence needs (e.g., fruit/food, fuelwood, and fodder). Although men are most heavily engaged in obtaining products for occasional uses and construction timber, they are not excluded from collection of products for daily consumption. Immediate research priorities should focus on the use of multipurpose tree species to meet the needs of both sexes.

140

PN-ABQ-020
MF \$1.08/PC \$4.42

Final report covering period July 1989-July 1993: animal seed-dispersers as key elements for conservation of tropical forests — a case study in the Nyungwe Forest Reserve, Rwanda

Moermond, Timothy C.; Mvukiyumwami, Joseph
University of Wisconsin at Madison

Institute of Scientific Research and Technology

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Research (Sponsor)

Jul 1993, [34] p.: charts, En

AID/SCI no. 9.259

9365542

Animals are important dispersers of tree seeds, and thus play a critical role in the natural regeneration of tropical forests. This study (7/89-7/93) explored the roles of approximately 20 primate and bird species in dispersing seeds for over 50 tree species in Nyungwe Forest in Rwanda. The study found that a large portion of the trees of the Nyungwe forest are dispersed by animals; all the tree species observed appear to be visited by several species of potential seed-dispersers. Several species of fruit eaters were identified as likely important seed dispersers, including: Blue and Mountain monkeys; chimpanzees and managabeys, the turaco species, understory bulbuls, canopy starlings, and Olive pigeons. Small understory birds may be particularly important in dispersing a wide variety of smaller fruited tree species. Differences in the movement patterns of different species suggest important differences in the consequences of plant dispersal. For example, one species of monkey, already rare in most of central Africa, appears to be an important agent for moving seeds from forests into clearings. The study resulted in the training of one Rwandan university student, the integration of study findings into forest management plans now being developed by Rwandan forestry officials, and the strengthening of efforts of a Rwandan research institute to expand conservation research.

Forestry policy reform in Mali: an analysis of implementation issues

Brinkerhoff, Derick W.; Gage, James D.
Management Systems International, Inc.
University of Maryland at College Park. Colleges of
Agriculture and Life Sciences. Ofc. of International
Programs. International Development Management
Center

Abt Associates, Inc.

Development Alternatives, Inc.

U.S. Agency for International Development. Bur. for
Research and Development. Ofc. of Economic and
Institutional Development (Sponsor)

U.S. Agency for International Development. Bur. for
Africa. Ofc. of Analysis, Research and Technical
Support (Sponsor)

U.S. Agency for International Development. Bur. for
Africa. Mali (Sponsor)

Sep 1993, 43 p. + 2 annexes, En

French ed.: PN-ABQ-635

6880267; 6880268; 9365451

Like many countries in the Sahel, Mali is revising its forestry code to facilitate natural resource management at the local level. Issues involved in implementing the new code are analyzed in this report. Section II discusses the evolution of Mali's forestry code from the 1935 decree to the groundswell of support in 1991 for local self-management. Section III examines the forthcoming code using a model that associates six conditions with successful policy implementation, namely, the extent to which the policy and/or its statutes: (1) contain clear and consistent objectives, or criteria for resolving goal conflicts; (2) accurately identify key factors and linkages affecting policy outcomes, including specification of target groups and incentives; (3) are structured to maximize the probability of compliance by implementing agents and target groups; (4) are supported by leaders and senior managers having strong strategic management and political skills; (5) are supported by constituency groups and stakeholders; and (6) are implemented within stable socioeconomic and political environments. Although Mali's experience with forestry policy shows some problems in meeting these six conditions, a concluding section is cautiously optimistic. The political environment seems propitious, but institutional weaknesses and the lack of an incentive structure may dilute or even derail implementation in the near term, while long-term prospects are clouded by socioeconomic and environmental factors. Includes bibliography.



A man hauls a load of fuelwood. Many developing countries are rethinking their forestry codes.

Assessment of A.I.D. environmental programs: energy conservation in Pakistan

Church, Phillip; Kumar, Krishna; Sowers, Fred
U.S. Agency for International Development. Directorate
for Policy. Center for Development Information and
Evaluation.

Sep 1993, xviii, 45 p. + 4 appendices, En
A.I.D. technical report, no. 11
Summary highlights: PN-ABG-015
3910478

Pakistan's energy conservation program, the focus of this evaluation, began in 1986 as a \$15.5 million component of the larger USAID Energy Planning and Development Project, and centered on creating the National Energy Conservation Center (ENERCON), a public sector institution. The program has had some impact: ENERCON estimates that the program has led to \$3.6 million in annual savings and 50% reduction in carbon monoxide and sulphur dioxide emissions in participating firms, an 11% reduction in gasoline consumption and a 50% drop in carbon monoxide and sulfur dioxide emissions in tuned-up cars, and substantial reductions in energy consumption

The program has had some impact: ENERCON estimates that the program has led to \$3.6 million in annual savings and 50% reduction in carbon monoxide and sulphur dioxide emissions in participating firms, an 11% reduction in gasoline consumption and a 50% drop in carbon monoxide and sulfur dioxide emissions in tuned-up cars, and substantial reductions in energy consumption and/or noxious emissions in agriculture and public buildings.

and/or noxious emissions in agriculture and public buildings. After recovery of the private investment costs of participating firms, the rate of return on USAID's \$15.5 million is, in the industrial sector alone, about 19%. Additionally, energy audit and training costs have dropped to sustainable levels. Overall, ENERCON's sustainability is uncertain, although it has strengthened both public and private sector technical capacities and has created a modest demand for energy conservation consulting services. It has proved most effective when it has sponsored focused energy audits (e.g., improved boiler efficiency, electric power use adjustments) and less effective when it has attempted total energy management surveys. Lessons learned are as follows. (1) A successful energy conservation program requires a favorable economic and political climate. (2) Energy conservation sells best when participants are given access to low-cost technologies with prompt pay-backs. (3) Local private engineering expertise is critical for spreading and sustaining energy conservation services. (4) Flexible project designs permit managers to respond effectively to new conditions. In conclusion, the evaluation discusses three outstanding issues — the roles of subsidies, of nonproject assistance, and of NGOs — recommending that they be reassessed after 5 years.

EDUCATION

143

PN-ABN-725
MF \$2.16/PC \$16.38

Mozambique: education sector assessment = Avaliacao da educacao

Dzvimbo, K. Peter; Plank, David N.; et al.
Florida State University
U.S. Agency for International Development. Bur. for Africa. Mozambique (Sponsor)
U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Education (Sponsor)
Jul 1992, xi, 125 p.: charts, statistical tables, En, Summaries in Pt
9365823

The war in Mozambique and the country's overall lack of resources have had devastating effects on the country's educational system. The schools suffer from poor physical infrastructure, low instructional quality, low quality of textbooks and instructional materials, and administrators with no specialized training. Limited access to education is

Only a third of primary school-aged children in Mozambique are enrolled in school; only 3,000 students are enrolled at the University, out of a population of about 15 million.

also a problem, with only a third of primary school-aged children enrolled in school and only 3,000 students enrolled at the University, out of a population of about 15 million. Sixty percent of Mozambique's GDP already comes from foreign donor support, and it appears that donors are the only means of repairing the educational system. This sector assessment includes nine chapters, covering in turn: primary education, academic secondary education, formal vocational/technical education, higher education, planning and administration, economic and financial aspects, foreign assistance, and recommendations. The authors conclude that aid should be provided as efficiently and directly as possible. While this might be achieved by trying to avoid the normal administrative

channels, heavily centralized at the Ministry of Education, it is probably preferable to work through the Ministry and increase its administrative capacity. Nonproject assistance, accompanied by appropriate policy conditionality and targeted technical assistance, is recommended, along with a complementary program of matching grants to fund local and private initiatives in basic education. Another clear need is for in-service teacher training, as virtually none is now provided.

144

PN-ABP-927
MF \$1.08/PC \$4.16

Towards a policy for early childhood education in Latin America and the Caribbean

Reimers, Fernando
Harvard University. Harvard Institute for International Development
Academy for Educational Development, Inc.
U.S. Agency for International Development. Bur. for Latin America and Caribbean. Ofc. of Development Resources. Education and Human Resources Div. (Sponsor)
1992, 27 p.: statistical tables, En
EHRTS (education and human resources technical services) working papers: education and development, no. 1
5980659; 5970032

As of 1987 only 15% of children under age 6 in Latin America or the Caribbean were enrolled in preschool programs, a rate that reflects the relative neglect of preschool education issues in public policy. This document argues that Latin American and Caribbean governments must develop strategies to improve preschool education and increase attendance. Research conducted in the United States, Latin America, and other countries indicates that quality preschool programs can benefit developing country children in a number of ways — by controlling nutritional problems, developing cognitive skills, and inculcating a desire to learn. Given the financial constraints under which they labor, Latin American governments should (1) identify

sound models of preschool education programs that can be implemented by the private sector (communities, industry, or unions), and (2) stimulate demand for high-quality services, e.g., by educating the public on what constitutes a developmentally sound curriculum. Governments might also develop partnerships with NGOs or communities. Given the great diversity of existing models both of preschool and child care and of organizational and funding mechanisms, it should be possible to identify the most cost-effective options. Failure to do so, according to this paper, would result in leaving the children under the tutelage of the informal system of family members, baby-sitters, and other child care providers that is a root cause of the school failure and poverty widespread in the region.

145

PN-ABP-930
MF \$1.08/PC \$5.33

Education and the consolidation of democracy in Latin America: innovations to provide quality basic education with equity

Reimers, Fernando
Harvard University. Harvard Institute for International Development
Academy for Educational Development, Inc.
U.S. Agency for International Development. Bur. for Latin America and Caribbean. Ofc. of Development Resources. Education and Human Resources Div. (Sponsor)
1993, iii, 36 p., En
EHRTS (education and human resources technical services) advocacy series: education and development, no. 4
5980659; 5970032

With the return of democratically elected governments to several countries in Latin America, there is growing hope that the region's educational systems, traditionally among the most inequitable in the world, can provide education of equal quality to children from different socio-economic backgrounds. This paper examines three innovative educational programs which have demonstrated

that it is indeed possible to provide quality education to even the poorest children of Latin America. *Fe y Alegria* is a Catholic NGO which provides formal and non-formal education to poor children in 12 countries. Its basic method is to create partnerships between itself, the local community, and the state — typically, the Ministry of Education pays teacher salaries; the local community participates in the construction and maintenance of the school, and *Fe y Alegria* trains and supervises the teachers, manages the school, and coordinates school activities. *Escuela Nueva* in Colombia is an outgrowth of the "unitary" experimental schools of the 1960's, and relies on self study guides, a flexible promotion system, and a modular curriculum to allow students to work at their own pace. *Escuela Nueva* students do about the same as students in traditional schools, but require fewer teachers (one per grade). Finally, *Programa de las 900 Escuelas* is a comprehensive effort undertaken by several NGOs and the Government of Chile to address educational disparities in the 900 poorest schools in Chile. This effort includes teacher training, curriculum development, and physical plant components. The report concludes that several common factors have contributed to the success of these initiatives: (1) involvement of the local community, both in pedagogy and in school leadership; (2) strict fiscal management; (3) sensitivity to conflicting political interests in the education system; (4) an ability to learn from past experience; and (5) teacher training.

146

PN-ABP-098
MF \$1.08/PC \$5.07

Conserving Egypt's cultural heritage: priority sites needing restoration and protection

Weeks, Kent

Chemonics International Consulting Div.

U.S. Agency for International Development. Bur. for
Near East. Ofc. of Development Resources (Sponsor)

U.S. Agency for International Development. Bur. for
Near East. Egypt (Sponsor)

Mar 1993, v.p., En

3980365

In Cairo, in January 1993, multi-donor meetings were held to discuss the Government of Egypt's Environmental Action Plan of March 1992. This report offers proposals for cultural heritage preservation activities that were outlined in this plan. The participants in the meetings reached the unanimous decision that only the highest priority projects be chosen and that they be projects that could be implemented immediately. This report recommends action at Siwa Oasis, Islamic Cairo, and Luxor, along with activities to upgrade archaeological resource management. At Siwa Oasis, a feasibility and design study is proposed to ensure effective plans for lowering groundwater levels, protecting Siwa's two most important historic monuments (the Oracle Temple and Old Town Aghurmi), safeguarding the area's unique flora and fauna, and improving the economic condition of the inhabitants while preserving their traditional culture. In Islamic Cairo, the report proposes the establishment of a 3 sq km cultural zone in the North Gamaliya section to ensure protection of one of the world's most important collection of Islamic monuments, while at Luxor, proposals call for designating the West Bank area a World Heritage Park under a single management agency, establishing a database and monitoring system, developing plans to increase tourism, and undertaking urgently needed work in the Valley of the Kings Training programs in archaeological resource management for Egyptian managers of cultural sites and the establishment of a nationwide archaeological database and

monitoring system are also proposed. In conclusion, the report suggests an overall framework for integrating these cultural heritage projects.

147

PN-ABP-177
MF \$1.08/PC \$5.85

Consequences of permanent lay-off from civil service: results from a survey of retrenched workers in Ghana

Alderman, Harold; Canagarajah, Sudharshan; Younger, Stephen S.

Cornell University. New York State Colleges of Human Ecology & Agriculture & Life Sciences. Div. of Nutritional Sciences. Cornell Food & Nutrition Policy Program

U.S. Agency for International Development. Bur. for Africa. Ofc. of Analysis, Research and Technical Support (Sponsor)

Feb 1993, v. [39] p.: statistical tables, En

CFNPP [Cornell food and nutrition policy program] working paper, no. 35

6980519

In 1986, the Government of Ghana, faced with dwindling revenues and a burgeoning civil service, initiated a program to reduce the number of public sector employees by redeploying them to the private sector. In 1991, the Cornell Food and Nutrition Policy Program conducted a survey to determine the effects of this redeployment in terms of income, consumption, labor force participation, migration patterns, and other socioeconomic variables. Results of that survey show that the fear of unemployment was exaggerated: the majority of redeployees worked without interruption after leaving government service, in part because they continued in moonlighting jobs they already had. Further, a significant number chose to migrate from urban to rural areas, and most of these are now farming. On the negative side, redeployees' household income is somewhat lower than the general population, and a substantial number are poor by any standard; from a social welfare perspective, further benefits to redeployees should focus on those who are farming. Non-farm income,

on the other hand, is higher than average, and self-employed redeployees are earning average incomes, even though few received any training or assistance (except for severance pay). Finally, redeployees devoted a significant amount of their severance pay — which all donors refused to finance, even though the alternatives they offered have produced few results — to savings, and much of that has been used for physical investments in self-employment enterprises.

148

PN-ABP-256
MF \$1.08/PC \$2.21

Bisexual behavior and AIDS in Brazil

Parker, Richard G.

Rio de Janeiro State University. Social Medicine Institute

Academy for Educational Development, Inc.

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Health (Sponsor)

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Population (Sponsor)

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Education (Sponsor)

1992, 11 p., En

[AIDSCOM occasional paper]

9365972

The importance of male bisexual behavior in HIV transmission in Latin America is especially evident in Brazil, which has the highest number of reported cases of AIDS in Latin America and one of the most potentially explosive AIDS epidemics anywhere in the world. This paper reviews anthropological and sociological research on homosexuality and bisexuality in contemporary Brazilian life, along with a set of largely unpublished empirical data from Rio de Janeiro on bisexual behavior and the risk of HIV transmission. Implications drawn from this review for AIDS research and prevention efforts include the following. (1) Documenting the extent and patterns of bisexual behavior is urgently needed. Priority should be given to

identifying bisexual activity in the relatively well-known locations where same-sex interactions are sought out. (2) The wide range of sexual types (e.g., the effeminate, the highly masculine, transvestites) suggest the need for a range of intervention strategies. (3) A sizable number of men engage in bisexual activity because they lack a distinct sexual identity. These men are not reached by current interventions, which focus on homosexuals. (3) Attitudes towards risk and the desirability of condom use among bisexual males are important factors needing study. The sociocultural background, as well as the popular association between AIDS and homosexuality, may make many bisexual men unaware of being at risk and even prone to deny their homosexual behaviors. (4) Outreach activities, risk assessment counseling, and social support structures may be more important in reaching bisexual men than the informational interventions which to date have dominated AIDS prevention efforts in Brazil.

149

PN-ABP-334
MF \$3.24/PC \$30.03

International conference on the role of women and the transition to democracy in Central and Eastern Europe, [Strasbourg, France, October 3-4, 1992]

Boston University. Center for Democracy

Futures Group

U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Women in Development (Sponsor)

14 Apr 1993, v.p., En

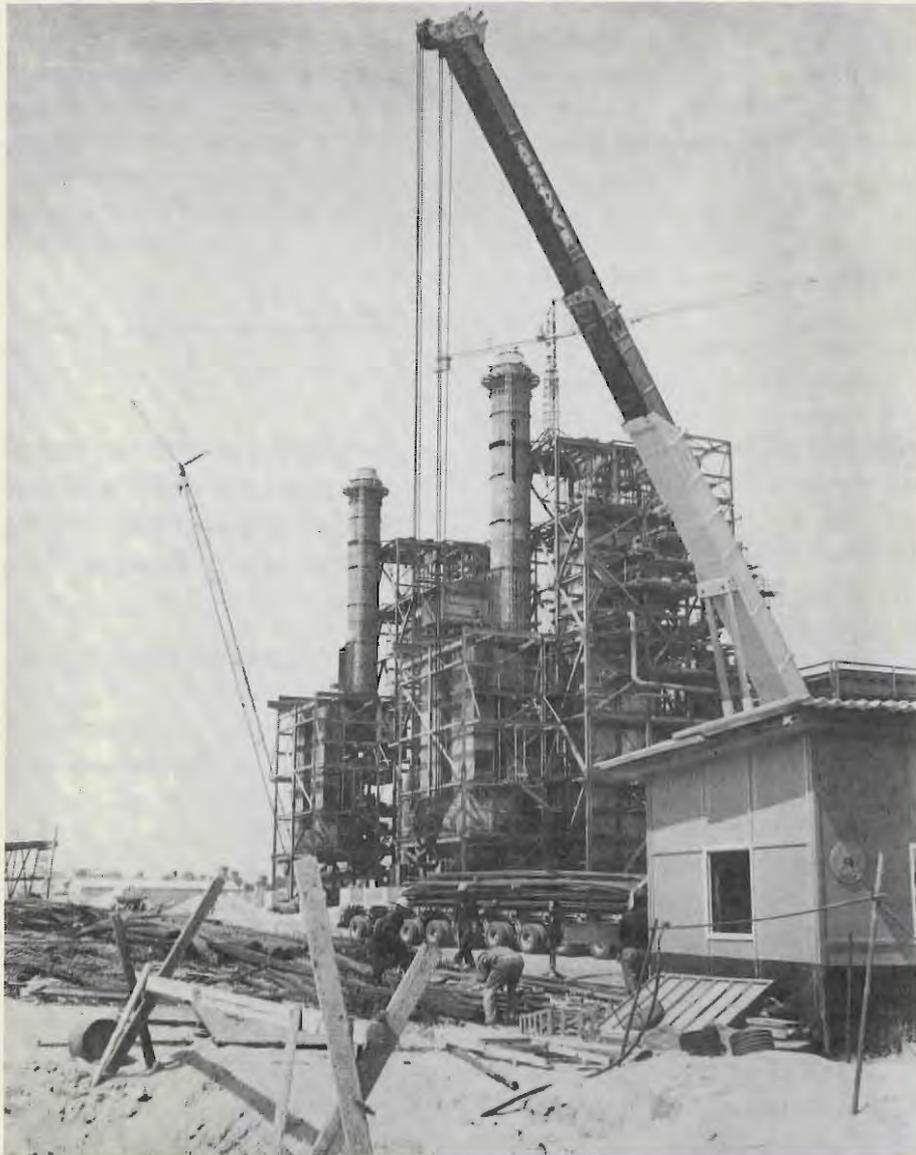
9300300

The transition to democratic, market-based societies has in some ways negatively affected the participation of women in politics and in the workforce in Central and Eastern Europe. For example, a September 1992 poll found that since 1989 the number of women in the region's parliaments has declined, with decreases ranging from 8.5% in Bulgaria to 25.5% in Albania. The conference reported in this document, conducted under the auspices of the Council of Europe, was organized by USAID to enable

SOCIAL SCIENCE AND PSYCHOLOGY

women political leaders from the region and their counterparts from Western Europe and the United States to discuss the role of women in the democratization and economic reform process. The first three sessions addressed: women's role in the economic, social, and political process in Central and Eastern Europe; the impacts of Western government actions and policies on women's participation in politics and the economy; and strategies for building the organizational and leadership skills of Central and Eastern European women, especially by establishing action networks and improving women's access to the media. A final

session discussed a range of concerns, including domestic and sexual violence, organization of women's caucuses within parliaments, job training and business financing, research on women's social and health issues, development of television programming featuring women role models, international networking of women's groups, and development of women's empowerment training workshops for parliamentarians and their staffs. The conference established a dialogue between USAID and the Council of Europe which potentially could lead to cooperative efforts in addressing gender concerns.



A thermal plant under construction in Egypt.

**GIS [geographic information systems]
handbook**

Eastman, J. Ronald; Fulk, Michele; Toledano, James
Clark University

U.S. Agency for International Development. Bur. for
Africa. Ofc. of Analysis, Research and Technical
Support (Sponsor)

Nov 1993, 66 p.: charts, En

ARTS publication. Technical paper, no. 11
9365452

Geographic Information Systems (GIS) technology has emerged as a powerful tool for managing and analyzing spatial data — data that are georeferenced, or tied to a specific point or area on the ground. Because such data are at the core of many development efforts, GIS is particularly relevant to USAID; however, when compared with other computer-based technologies such as spreadsheets and database managers, the adoption of GIS is still its

infancy. This introductory guide to GIS is aimed primarily at USAID Mission officers unfamiliar with GIS or computers in general, but would also be useful to others involved in development in the areas of agriculture, infrastructure, or natural resources management. While the handbook does offer a snapshot of the current state of the technology, its main purpose is to address issues of concern to managers, such as: (1) how to determine whether GIS would be a useful tool for solving a given set of problems; (2) what combinations of hardware and software would be needed; (3) what would be the implications for budget, personnel, and institutional reorganization; and (4) how to go about all of the above. Section one describes general aspects of a GIS and its three main applications—as an archival system, an analytical system, and a decision support system. Sections two and three focus on, respectively, matching problemsolving needs with a GIS application, and describing the mathematical workings of a GIS. Sections four and five address the transfer of GIS technology to an organization: system design, technical and human resource needs, institutional issues, etc. Appended are (1) a description of a demo diskette (not available from USAID/CDIE/DI) illustrating two applications of GIS, and (2) a glossary of terms.

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