

# A.I.D. Research & Development Abstracts



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## **A.I.D. Research and Development Abstracts**

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*Cover: This little girl lives in New Delhi, India, where poverty is the overriding constraint to nutrition improvement.*

*(Credit: Agency for International Development)*

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## QUESTIONS AND ANSWERS ABOUT ARDA

<b>What is ARDA?</b>	ARDA, "A.I.D. Research and Development Abstracts", is a quarterly abstract journal issued by the Division of Development Information, Center for Development Information and Evaluation, Bureau for Program and Policy Coordination.
<b>What is the goal of ARDA?</b>	The goal of ARDA is to transfer development and technical information to active practitioners in development assistance.
<b>For whom is ARDA published?</b>	ARDA's target audience is A.I.D. staff world wide and selected key institutions in developing countries. Such institutions are government agencies, universities, libraries, research organizations, and other public and private sector organizations.
<b>What material is abstracted in ARDA?</b>	ARDA presents abstracts of AID-funded current and less recent research studies, state-of-the-art reports, sector analyses, special evaluations, and other documents which, taken together, describe a broad spectrum of international development experience.
<b>To whom do I address additional questions regarding ARDA?</b>	Please direct all correspondence and requests for further information to:  Editor of ARDA PPC/CDIE/DI Agency for International Development Washington, D.C. 20523 U.S.A.

## QUESTIONS ET REPONSES RELATIVES ARDA

<b>Qu'est-ce qu'ARDA?</b>	ARDA, "A.I.D. Research and Development Abstracts", (Résumés sur la recherche et le développement de l'Agence pour le Développement International), est une revue trimestrielle composée de résumés publiée par la Division de l'Information sur le Développement, Centre d'Information et Dévaluation du Développement, Bureau de Coordination de Programmes et Politiques.
<b>Quel est l'objectif d'ARDA?</b>	Le but d'ARDA est de transmettre des informations techniques sur le développement à ceux qui prêtent assistance au développement.
<b>A qui s'adresse ARDA?</b>	ARDA s'adresse au personnel d'A.I.D. dans le monde entier et à certaines institutions clés situées dans les pays en voie de développement. Ces institutions comprennent des agences de gouvernement, des universités, des bibliothèques, des organisations de recherche, et d'autres organisations dans les secteurs publics et privés.
<b>Que contiennent les résumés d'ARDA?</b>	ARDA présente des résumés des recherches actuelles et moins récentes financées par A.I.D., des rapports sur l'état actuel du développement, des analyses dans les différents domaines, des évaluations spéciales, et d'autres documents. L'ensemble décrit une vaste étendue d'expériences dans le domaine du développement international.
<b>A qui est-ce qu'il faut poser des questions supplémentaires au sujet d'ARDA?</b>	Veillez envoyer toute correspondance et toute demande de plus amples renseignements à:  Editor of ARDA PPC/CDIE/DI Agency for International Development Washington, D.C. 20523 U.S.A.

## PREGUNTAS Y RESPUESTAS SOBRE ARDA

<b>¿Que es ARDA?</b>	ARDA, "A.I.D. Research and Development Abstracts" (Resúmenes de Investigación y Desarrollo de A.I.D.) es una revista que se publica cuatro veces al año por la División de Información sobre el Desarrollo del Centro de Información y de Evaluación del Desarrollo, Negociado de Coordinación de Programas y Políticas.
<b>¿Cuál es el objetivo de ARDA?</b>	El objetivo de ARDA es suministrar información técnica y sobre el desarrollo a los practicantes en actividades propias del desarrollo.
<b>¿Para quién se publica ARDA?</b>	ARDA está dirigida al personal de A.I.D. en el mundo entero y a escogidas instituciones claves en los países en desarrollo, tales como agencias de gobierno; universidades; bibliotecas; organizaciones dedicadas a la investigación; y otras organizaciones del sector público o privado.
<b>¿Que contienen los informes de ARDA?</b>	ARDA presenta resúmenes de estudios actuales o recientes, financiados por A.I.D., relativos a la investigación; informes de excelente calidad que incluyen los conceptos y metodologías más avanzados; análisis sectoriales; evaluaciones especiales; y otros documentos que-vistos en conjunto-describen un amplio panorama de experiencias dentro del campo del desarrollo internacional.
<b>¿A quién se le dirigen preguntas adicionales sobre ARDA?</b>	Remita toda correspondencia o pedidos para mayor información a:  Editor de ARDA PPC/CDIE/DI Agency for International Development Washington D. C. 20523 U.S.A.

# USER'S GUIDE TO ARDA CITATIONS

Item number	<b>055</b>	<b>*PN-ABC-681</b>	Document number
		<b>MF \$2.16/PC \$14.95</b>	Microfiche/paper copy prices
Title	<b>Tilapia genetic resources for aquaculture : proceedings of the workshop on tilapia genetic resources for aquaculture, 23-24 March 1987, Bangkok, Thailand</b>		
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-244**  
MF \$1.08/PC \$9.23

## **Sustainability of U.S.-supported health, population, and nutrition programs in Zaire: 1972–1988**

Mock, Nancy B.; Bossert, Thomas; Milanga, Miatudila  
U.S. Agency for International Development. Bur. for  
Program and Policy Coordination. Center for Development Information and Evaluation (Sponsor)  
U.S. Agency for International Development. Bur. for Africa. Zaire (Sponsor)  
Sep 1990, vii, 22 p. + 5 appendices, En  
A.I.D. evaluation occasional paper, no. 38

Factors affecting the sustainability of health projects in Zaire are identified in this report. Four projects are examined—maternal/child health clinics administered by Mama Yemo Hospital, community health-integrated rural development implemented by the Salvation Army, and two projects (health systems development and malaria control) implemented by the Ministry of Health. All of the projects were completed at least three years prior to the study. Only two of the projects were sustained. The MCH project is still providing clinical and family planning services, and using the educational materials developed during the period of A.I.D. assistance. Most activities under the Salvation Army project are also continuing, with the majority of recurrent costs being covered by user fees. By contrast, the malaria project has been completely dismantled, and none of the direct activities of the health systems project are continuing. The report concludes that the sustainability of projects in Zaire is strongly affected by contextual factors, such as the country's weak, poorly funded, and corrupt state institutions; continuing economic crisis; and weak implementing institutions (e.g., the extremely fragmented Ministry of Health). However, while more effort is necessary to strengthen the economic and institutional contexts of projects in Zaire, several improvements could be made even in this difficult context to enhance the sustainability of future projects. These improvements include: (1) project integration into the normal administrative structure of implementing institutions; (2) the involvement of implementing agencies in the project design process; (3) strong

training components; (4) increased community participation; (5) utilization of cost recovery and other alternative financing mechanisms; (6) demonstrated appropriateness and effectiveness of projects; and (7) high-quality technical assistance. Appendices include an assessment of the sustainability potential of current health projects. Also available are papers on the sustainability of health projects in Senegal (PN-AAX-245) and Tanzania (PN-AAX-243).

002

**PN-AAX-249**  
MF \$1.08/PC \$9.62

## **Conducting mini surveys in developing countries**

Kumar, Krishna  
U.S. Agency for International Development. Bur. for Program and Policy Coordination. Center for Development Information and Evaluation  
Dec 1990, vi, 65 p.: charts, statistical tables, En  
A.I.D. program design and evaluation methodology report, no. 15

While mini-surveys cannot substitute for complex, large-scale surveys, they can provide valuable information in a variety of program and project settings. This paper provides a comprehensive, step-by-step guide to conducting mini-surveys in developing countries. It details how to plan surveys, prepare questions, design the questionnaire, select respondents, ask questions, and analyze and present the survey data. A mini-survey may be defined as one which: (1) focuses on a narrowly defined issues; (2) keeps the number of questions small (15–30); (3) employs a small sample size (25–70); (4) typically uses closed rather than open-ended questions; and (5) may employ informal sampling procedures, though the more objective probability sampling is preferred. Such surveys have several advantages. Unlike other low-cost data collection methods, they can generate qualitative data. In addition, they can be completed within a short time-span (3–7 weeks), contain few nonsampling errors, and are relatively low in cost. Their use is particularly appropriate when: (1) limited time or resources do not permit or justify the launching of a large sample survey; (2) the purpose of the survey is to develop questions, hypotheses, and propositions for further testing;

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and (3) some quantitative data are needed to supplement qualitative information. The limitations of mini-surveys should also be borne in mind, however. Their findings are less capable of generalization, for example, while the small sample size may not permit statistical analysis and frequently places the survey's credibility in question.

**003** **PN-ABF-992**  
**MF \$2.16/PC \$24.57**

## **Institutional incentives and rural infrastructure sustainability**

Ostrom, Elinor; Schroeder, Larry; Wynne, Susan Associates in Rural Development, Inc.  
U.S. Agency for International Development. Bur. for Science and Technology. Ofc. of Rural and Institutional Development (Sponsor)  
May 1990, xiv, 181 p.: charts, En  
9365446

This document discusses the problem of sustaining rural infrastructure, with emphasis on the institutional arrangements which shape the incentives of the individuals responsible for development and maintenance. The report begins with a set of examples intended to illustrate the complexities of infrastructure sustenance. Chapter II provides examples of both successful and unsuccessful rural infrastructure efforts in developing countries (Jamaica, Sri Lanka, Bangladesh, Nepal, Malawi, and the Philippines), while Chapter III assesses efforts to decentralize development in the Philippines, concluding that decentralization, to be effective, requires institutional renewal and the incentives that engender it. Chapter IV uses transaction cost analysis to examine these incentives within the complexus of information, coordination, and control problems inherent in multi-actor infrastructure development investments. Chapter V describes the attributes of rural infrastructure that create disincentives to their efficient design and maintenance, and Chapter VI develops alternative institutional arrangements on the basis of a fuller set of intermediate and overall performance criteria, while Chapter VIII focuses on polycentric institutional arrangements, as an alternative to centralized or decentralized approaches. The final chapter suggests types of strategies that national

governments and donor agencies might adopt to enhance the likelihood that infrastructure facilities will be maintained.

**004** **PN-ABG-001**  
**MF \$1.08/PC \$2.60**

## **Terms of endowment: a new A.I.D. approach to institutional development**

Hansen, Gary  
U.S. Agency for International Development. Bur. for Program and Policy Coordination. Center for Development Information and Evaluation  
Dec 1990, 20 p., En

Since the mid-1980's, several A.I.D. Missions and host governments in Latin America and the Caribbean have worked together to establish endowments for existing and new institutions. While many of these endowments are being used to strengthen the institution's financial base, others serve as innovative mechanisms for transferring key development functions from the inefficient public sector to the more entrepreneurial and non-bureaucratic private sector, typically to a non-profit private foundation or other non-governmental organization. Currently, nine A.I.D.-endowed institutions in Costa Rica, Ecuador, Honduras, Dominican Republic, and Portugal are performing development roles in such areas as agricultural research, natural resource management, and trade and investment promotion. (A review of these endowments is included in the present report.) Funding for endowments has come primarily from Economic Support Fund and P.L.-480 food program local currency generations, though the new Debt-for-Development Initiative now allows the use of dollar currency for this purpose. Interest earned on these funds may be reinvested in the endowment or used for stipulated development activities. Endowment agreements also generally stipulate that A.I.D. funds be invested, either in country or overseas; some agreements contain matching formulas as an incentive for the organization to diversify its resource base. In granting endowments, Missions are cautious to avoid duplicating and displacing government institutions. They are also aware of the need to keep organizations with guaranteed endowment income from

yielding to organizational inertia, and to protect the endowment from political interference, the devaluation consequence upon economic instability, and financial mismanagement.

**005**

**PN-ABG-211**  
**MF \$1.08/PC \$11.70**

## **Science and technology information services and systems in Africa: report of a workshop held in Nairobi, April 19–22, 1989**

National Research Council. Ofc. of International Affairs. Board on Science and Technology for International Development  
U.S. Agency for International Development. Ofc. of the Science Advisor (Sponsor)  
(Workshop on Science and Technology Information Services and Systems in Africa, Nairobi, KE, 19–22 Apr 1989)  
Rev. ed.  
1990, vi, [85]p., En  
Published by: National Academy Press  
9365538

The status of scientific and technical information (STI) systems and services in selected African countries (Ghana, Kenya, Senegal, Sierra Leone, Zimbabwe, Ethiopia, Ivory Coast, and Nigeria) is summarized in this report, along with trends in information services and management. A framework for developing an STI system is also provided. According to the report, the adoption of STI systems has proceeded much more slowly in Africa than in Asia and Latin America. Constraints include shortages of funds and of trained personnel, the absence of an enabling environment, and lack of native language software and of peripherals for acquired hardware. However, several trends provide African information professionals unprecedented opportunities to develop innovative and effective systems. Firstly, there is an increased awareness of the importance of networks and linkages among institutions, countries, researchers, and other players in the information exchange process. Secondly, many of the latest information technologies—e.g., CD-ROM, desktop publishing, and elec-

tronic messaging and conferencing—are well-suited to developing country situations. While these technologies have been accepted in several African countries, their benefits need to be consolidated and integrated into networks, and long-term cost recovery issues need to be worked out. Individual country reports and a list of CD-ROM products on the world market as of 1990 are included among the appendices.

**006**

**PN-ABG-294**  
**MF \$2.16/PC \$16.51**

## **Food aid impacts on commercial trade: a review of the evidence**

Bremer-Fox, Jennifer; Bailey, Laura; Mervenne, Mary  
Robert R. Nathan Associates, Inc.  
U.S. Agency for International Development. Bur. for Food for Peace and Voluntary Assistance. Ofc. of Program Policy and Management (Sponsor)  
Oct 1990, v, [120]p.: statistical tables, En  
9380800

Twenty-four quantitative studies are reviewed in an effort to clarify the impact of food aid on a recipient country's commercial trade. On balance, the studies confirm that, in at least some cases, food aid partially displaces commercial imports in the short term. Of the 17 single-country analyses that directly measure this relationship, 6 found that each ton of food aid displaces between 300 and 900 kg of commercial imports in the short term, while 5 found smaller displacement impacts. On the other hand, 6 of the country studies found a positive relation between food aid and commercial imports. A second major conclusion is that the short-term impact of food aid on commercial imports depends both on the design of the program and on the structure of the food market in the recipient country, both of which are in turn greatly influenced by the domestic policy environment. In particular, programs that direct food aid through channels that do not directly compete with the commercial market are less likely to displace commercial imports in their design and operation. In sum, large quantities of food aid and large commercial imports tend to occur in the same countries: those with a large food deficit are more likely to import greater quantities com-

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mercially and to receive large amounts of food aid. The absence of literature on the long-term (longer than 3 years) impacts of food aid is noted.

**007**

**PN-ABG-407**  
**MF \$3.24/PC \$27.43**

## **Demand for training and the capacity of institutions to deliver vocational/technical training in Nicaragua**

Lockett, Danuta; Horn, Robin Scott; et al.  
Creative Associates International, Inc.

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

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

16 Nov 1990, 2 v.: ill., En  
5970000

The demand for vocational and technical training in Nicaragua and the capacity of institutions in the country to respond to these needs is examined. Topics include: the impact of economic development/recession on the demand for training; private sector demand for training, particularly in the agro-industrial, construction, and manufacturing sectors; vocational/technical training resources; donor activity in Nicaragua; and priorities for A.I.D. Eight key conclusions spring from the report. (1) The need for jobs and the need for training should be kept separate. Training does not create jobs; thus, investments in training are most effective when they are demand-driven. (2) The high rate of under- and unemployment (ca. 33%) will increase dramatically in the next year as large numbers of demobilized military and returning expatriates enter the labor force. Training programs will not alleviate this problem. (3) Employment generation programs—especially to rebuild Nicaragua's infrastructure—are a short-term mechanism for absorbing some of the unemployed until the government's economic programs take effect and market-driven job expansion occurs. (4) With an abundance of skilled workers in the labor market, the private sector is not facing any skill shortages. Technical training will be

needed in the future, however, when production expands and firms are forced to compete in an open economy. Moreover, the need for management training is expected to be more critical than for vocational training. (5) Ministry of Education (MED) schools are inefficient, provide poor quality training, and need substantial technical assistance and reform. (6) The National System for Training is also inefficient, but a framework exists to make it a well-financed, private sector-oriented institution. (7) Vocational schools operated by PVO's offer an attractive alternative to MED schools in training marginalized groups. (8) Several donors, particularly Germany, Holland, and the Soviet Union, have been involved to some extent in vocational training.

**008**

**PN-ABG-683**  
**MF \$1.08/PC \$4.16**

## **Lessons learned from review of Africa Bureau evaluations, 1987–1989**

Solloway and Associates, Inc.  
U.S. Agency for International Development. Bur. for Africa (Sponsor)  
9 Oct 1990, 30 p., En  
6980510

A comparative review of evaluations submitted by Africa Bureau Missions from 1987–89 is presented. The 65 evaluations (44 interim and 21 final) reviewed indicate that progress has been mixed. Projects in A.I.D.'s more traditional areas (i.e., agriculture, education, family planning, and transportation) as well as small enterprise development activities were showing good promise. Progress was less positive in the newer areas (e.g., combatting childhood communicable diseases and natural resource management). Several innovative approaches and successes in implementation are noted. Particularly worthy of attention are grassroots efforts in agriculture, job skills, natural resource, and small enterprise development projects, as well as a computerized tracking and monitoring system, developed in Kenya, for the Commodity Import Program. Although not enough time had passed to assess project impact, several lessons were learned which could be useful in future planning. (1) Project complexity was a root cause

of many implementation problems. (2) Faulty project design assumptions contributed to a number of breakdowns during implementation. (3) Institutional development should be given higher priority in project design, implementation, and management. (4) A stronger focus on sustainability is needed both at the outset of project planning and during implementation. (5) More systematic efforts to gather impact data are needed. (6) Gender role implications require more attention. (7) Mission management needs were frequently underestimated. (8) External evaluations should be continued, but more systematic in-house monitoring and evaluation efforts need to be made during earlier stages of implementation. A final section of the report summarizes progress by sector (agriculture; health, nutrition, and family planning; education; natural resources; transportation; private sector; and nonproject assistance).

009

PN-ABG-755  
MF \$1.08/PC \$10.14

## **A.I.D.'s experience with decentralization and the delegation of project review and approval**

Thompson, Randal J.

U.S. Agency for International Development. Bur. for Program and Policy Coordination. Center for Development Information and Evaluation

U.S. Agency for International Development. Bur. for Program and Policy Coordination. Ofc. of Policy Development and Program Review

Dec 1990, ix, 32 p. + 2 appendices, En CDIE working paper report, no. 142

Throughout the 1980's, A.I.D. promoted decentralization and the redelegation of authority to its field offices as a means of increasing efficiency. This study examines how well A.I.D.'s Washington-based Bureaus have succeeded in delegating authority and describes their project review and approval systems.

The study found that the Bureaus have developed slightly different systems for project and nonproject review, depending on the management conditions in their region and

the nature of the assistance. All three geographic Bureaus use the new project descriptions contained in action plans to decide whether to delegate PID and/or Project Paper approval to the Missions. The Bureau for Latin America and the Caribbean delegates many more PID's to the field than do the Africa or Asia/Near East Bureaus, and compen

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*A.I.D.'s programming process, with its historical emphasis on design documentation, fails to provide the kind of information and incentives needed to effectively manage program performance.*

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sates for this by requiring more detailed action plans and project implementation summaries. All three Bureaus selectively choose to approve Project Papers in A.I.D./Washington when they have concerns about the novelty of the project concept or the difficulty or sensitivity of the policy issues involved.

The study's major conclusions are as follows. (1) Several informants indicated that A.I.D./W reviews have deteriorated in quality, partly because lower level staff are leading the issue and approval meetings and often failing to maintain the control needed for constructive dialogue. (2) A.I.D./W is generally not concerned with improving the technical design of a project; rather it is concern for policy that makes A.I.D./W unlikely to redelegate its remaining approval authority. (3) There is no significant difference in quality between design documents approved in Washington and in the field. (4) Except in cases of new, particularly complex, or controversial policy issues, the field is in a better position than A.I.D./W to design projects responsive to local conditions. Finally, in a broader context, the study findings suggests that A.I.D.'s programming process, with its historical emphasis on design documentation, fails to provide the kind of information and incentives needed to effectively manage program performance.

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010

PN-ABG-988  
MF \$1.08/PC \$6.50

## Perspectives on democracy: a review of the literature

Wong, Melissa  
Ernst & Young

U.S. Agency for International Development. Bur. for Asia, Near East, and Europe. Ofc. of Technical Resources (Sponsor)

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

Sep 1990, [48]p., En  
940202803

Scholars have long debated the question which comes first—open markets or open societies—and have offered a variety of opinions on the relationship between economic growth and democratic development. This paper reviews major themes and findings in recent literature on this subject and on related aspects of democracy. Section I finds that recent literature confirms the generally positive relationship between economic development and democracy, although there are significant exceptions, e.g., Hungary, where the recent drive towards democracy has been driven by poor rather than prosperous economic conditions. Section II explores these exceptions by examining what scholars are saying about the social, educational, political, and cultural factors that foster or constrain the development of stable democratic systems. All agree on one thing: in extremely poor countries the prospects for democracy are dim. Literature on how and why democracies rise and fall is examined in Section III. Prospects seem best when the transition to democracy is gradual and peaceful and when participation precedes competition; foreign support for liberalization and economic development can prove helpful here. The final section reviews major measures of democracy (Bollen's POLDEM Scale, Coppedge/Reinicke Polyarchy Scale, and Gastil's Comparative Survey of Freedom), concluding that while democracy cannot be measured precisely it does have recognizable characteristics, notably, free and fair elections and significant political and civil freedoms.

011

PN-ABH-084  
MF \$1.08/PC \$2.86

## Targeting food subsidies

Kramer, Carol S.

Academy for Educational Development, Inc.

U.S. Agency for International Development. Bur. for Program and Policy Coordination. Ofc. of Policy Development and Program Review (Sponsor)

Dec 1990, 19 p., En  
9300082

Many food subsidy programs have benefited populations that did not need them, thereby consuming public resources that might have been more productively spent elsewhere. Given the abiding ethical, social, and political value of food subsidies, the question arises as to how to target the limited resources available for such programs to those most in need. Addressing this question, the present paper examines several types of and relations among food subsidy schemes, including untargeted and targeted subsidies for staple foods, food rationing, food stamp programs, and food distribution. It also provides examples of food subsidy programs in Pakistan, India, Sri Lanka, and the United States and discusses key macro- and microeconomic factors related to food subsidy and subsidy targeting effectiveness. A final section presents the following guidelines to help policymakers choose the most appropriate targeting strategy for food subsidies. (1) Identify and characterize the multiple categories of the poor and needy as well as their geographical location (urban or rural). (2) Identify and describe the macroeconomic and sectoral policies and the various personal and social constraints and needs most critical to these different groups. (3) Before choosing a targeting intervention, consult development literature and experience as well as the views of policymakers, clientele groups, and concerned political, economic, and major service groups. Additionally, have the situation assessed by a team comprised of an agricultural and food economist, a sociologist/anthropologist, a nutritionist with public health skills, and a policy and public spending analyst. (4) Initiate pilot projects to test the scheme chosen.

012

PN-ABH-085  
MF \$1.08/PC \$3.38

## Development assistance to reduce poverty: defining and measuring progress

Konan, Mildred A.  
Academy for Educational Development, Inc.  
U.S. Agency for International Development. Bur. for  
Program and Policy Coordination. Ofc. of Policy  
Development and Program Review (Sponsor)  
Jan 1991, [23]p., En  
9300082

Poverty is a multidimensional concept that can be defined, measured, and understood in many different ways. This paper summarizes current thinking on how poverty is defined and measured and explores different perspectives on how to alleviate it. The paper reviews a variety of measurement devices, focusing on composite indices (head count index, poverty gap, human development index) as well as single variable indicators (regarding consumption, income, food consumption and ratio, bodily measurement, basic needs, adult illiteracy, primary school enrollment, and life expectancy at birth). Seven views on means for alleviating poverty are also discussed, which include: (1) labor-intensive economic growth, (2) investments in human resources, (3) integration of economic growth and poverty reduction, (4) short-term income transfers and safety nets, (5) grassroots initiatives, (6) improvements in natural resources management, and (7) combining human and capital development. Poverty reduction, it is concluded, is a complex process and not a simple, one-time event.

013

PN-ABH-154  
MF \$3.24/PC \$29.77

## Improving development program performance: guidelines for managers

Brinkerhoff, Derick W.  
National Association of Schools of Public Affairs and  
Administration  
University of Maryland at College Park. Colleges of  
Agriculture and Life Sciences. Ofc. of International  
Programs. International Development Management  
Center  
U.S. Dept. of Agriculture. Ofc. of International Coop-  
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Management Center (Sponsor)  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Rural and Institu-  
tional Development (Sponsor)  
1991, xvi, 224 p.: charts, En  
Published by: Lynne Rienner Publishers, Inc.  
9365317

While development programs will always involve irreducible elements of uncertainty and "loose" cause-and-effect links, sound program management can minimize the effects of such intangibles. This book examines development program management from the point of view of the developing country manager and provides practical guidelines that encompass current thinking about the best ways to improve and sustain program performance. It is divided into nine wide-ranging chapters covering: (1) an introduction to development and management; (2) key concepts in programs and program management; (3) the program environment and policy setting and guidelines for dealing with these factors; (4) program design and planning, with emphasis on early attention to sustainability; (5) a program's organizational structure; (6) management systems and processes; (7) human resources; (8) performance improvement; and (9) managing for performance and sustainability. Management, in the view of the author, involves a broad set of activities which are directed towards achieving goals in complex settings. This complexity results from a myriad of social, technical, and physical phenomena that combine uniquely in any given management

## GENERAL DEVELOPMENT

situation. The practice of management can thus be seen as a craft, falling somewhere between science and art. In addition, development program managers must not be viewed as simply administrative technicians carrying out plans designed elsewhere. Depending upon the nature of their programs, they are called upon to fulfill many roles and must often mobilize resources from public, private, local, national, and international sources. Finally, development program managers need to function as organizational entrepreneurs, paying attention to a wide array of factors beyond the internal workings of their own units and the actions of their immediate subordinates.

014

**\*PN-ABH-192**  
MF \$2.16/PC \$13.26

### Transition democracy: proceedings of a workshop

National Research Council. Commission on Behavioral and Social Sciences and Education

U.S. Agency for International Development. Bur. for Science and Technology. Directorate for Human Resources (Sponsor)

(Transition to Democracy, Washington, DC, US, Oct 1990)

1991, viii, 93 p., En

Published by: National Academy Press

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

The recent movements toward democracy in many areas of the world have prompted A.I.D. to rethink its strategies for fostering democratic political and economic processes and institutions. These workshop proceedings present the views of experts in a variety of fields—including political science, sociology, economics, and legal studies—as well as of people actively involved in programs to foster democracy. Papers from the plenary sessions treat the political, economic, and social aspects of democracy; the steps to democracy; and threats to democracy. The reports of seven working groups are also presented, covering the following themes: (1) institutions and processes for debate, consensus, and conflict management; (2) institutions and pro-

cesses of state power (police and civil/military relations); (3) the relationship between approaches to democracy and economic development; (4) market-oriented economic reforms and democracy; (5) intermediary institutions that operate between the citizen and the state (unions, associations, interest groups, business organizations, and political parties); (6) special problems of divided societies; and (7) the relationship between “top-down” and “bottom-up” development strategies and the role of traditional cultures. Regional perspectives on Asia, Near East and North Africa, Eastern Europe, Africa, and Latin America are presented. A final section presents recommendations for an action agenda.



*Woman-owned enterprises can play an important role in national economic growth. Elizabeth Mandu Ntuchu (above) owns a business that employs 22 people in Bamenda, Cameroon.*

015

**PN-ABG-192**  
MF \$1.08/PC \$3.90

## **Women in economic development: a strategy for support to the sector in the West Bank and Gaza—phase one consultancy report**

Oldham, Linda

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

19 Aug 1990, 27 p., En

More and more emphasis is being given to supporting women's economic activities in the West Bank and Gaza. This report assesses the activities of 22 Palestinian women's groups, including cooperatives, charitable societies, and

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*Economic projects for women are operating in nearly total isolation from the commercial and industrial sectors of the society and have little linkage with the business support institutions beginning to develop in the West Bank and Gaza.*

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grassroots organizations. A major finding is that the economic projects are operating in nearly total isolation from the commercial and industrial sectors of the society and have little linkage with the business support institutions beginning to develop in the West Bank and Gaza. The central focus of these projects is small-scale industry, with some emphasis on commerce. While some are considered relief projects, designed to provide income for women whose husbands have died or been imprisoned, others aim to develop viable businesses. Project leaders are women from within the organizations with little business expertise, and no attempts have been made to take advantage of the skills of female entrepreneurs in the society at large. Support from governmental agencies generally consists of equipment and machinery, and does not satisfy the broad training needs of program managers and their workers. However, the women's movement is clearly committed to long-run involvement in increasing women's participation

in the West Bank and Gaza, and experiences over the past few years have led to a rethinking of the expertise required to promote it. A program which focuses on women's production and commerce at the smaller range of enterprise scales could have considerable impact.

016

**PN-ABG-351**  
MF \$2.16/PC \$13.00

## **Gender and the growth and dynamics of microenterprises**

Downing, Jeanne

Development Alternatives, Inc.

U.S. Agency for International Development. Bur. for Science and Technology. Ofc. of Rural and Institutional Development (Sponsor)

Sep 1990, vi, 29 p. + 3 appendices, En  
9365448

Growth-oriented economic strategies, which favor the allocation of government resources to high-growth sectors, are often criticized by women in development (WID) researchers, because of the concentration of women in low-growth, low-return microenterprises. This report argues the compatibility of the two concerns by delineating the potential for women entrepreneurs to participate in and contribute to regional and national economic growth processes. The paper establishes the importance of gender variables to microenterprise development, explores apparent contradictions between WID and growth-oriented approaches, and proposes a strategy that bridges growth- and gender-oriented approaches and capitalizes on their strengths and complementarities. The practicalities of implementing this strategy are explored in terms of entrepreneurial behavior that impedes or enhances adoption of a growth orientation, the effect of different income strategies on enterprise growth patterns and in particular on enterprise specialization and productivity, and the special constraints and disincentives female entrepreneurs face in increasing the level and stability of their enterprise or portfolio income. Gender-sensitive hypotheses and research questions are presented as a guide to future research. The research questions suggest specific avenues

# WOMEN IN DEVELOPMENT

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for investigating each hypothesis, while policy implications at the macro, subsector, and micro levels link research with program concerns.

**017** **PN-ABG-358**  
MF \$3.24/PC \$33.41

## **Women in development portfolio review: the identification of means to further promote the integration of gender considerations into USAID/Guatemala's program**

Alberti, Amalia; Bremer, Gordon; et al.

Ernst & Young

Futures Group

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

Sep 1990, 2 v., En

9300300

Though actively involved in the economic sectors supported by the USAID/Guatemala Mission, Guatemalan women—especially the poor—face specific constraints to participation which require targeted efforts to overcome. This report assesses the Mission's recent efforts to integrate women into its development projects and programs. The review indicates that the Mission is cognizant of the importance of incorporating gender concerns into its portfolio and has the means to do so. Nonetheless, women are still under-represented in some areas, and gender differences in the quality of participation and project impacts have generally not been considered until recently, except in the cases of social service delivery (family planning, health, education), micro-enterprise, and informal sector development. Following general recommendations, the report presents eight recommendations for gender-specific interventions: (1) training of extension and field personnel to promote the participation of women in project activities; (2) a small livestock improvement program; (3) a strategy to target men and couples in family planning activities; (4) hiring a coordinator of educational research for women in development; (5) developing a strategy for improving women's access to the benefits of democracy; (6) enhanc-

ing women's participation in infrastructure development projects; (7) an export development program; and (8) a women's village banks project.

**018** **PN-ABG-473**  
MF \$2.16/PC \$21.45

## **Improving statistics and indicators on women in Guatemala: final report**

Falvey, M. Christine

Midwest Universities Consortium for International Activities, Inc.

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

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

Jun 1990, v, 51 p. + 11 annexes, En

9300300

To effectively include women in development projects as participants and beneficiaries, it is necessary to have appropriate and accurate information about women and the effect of projects on women. As a step toward meeting this need, this report presents a Gender Indicator System (GIS) for use by the USAID/Guatemala Mission in incorporating the concerns of women, especially Mayan women, into project planning, implementation, and evaluation. The core of the system is a set of indicators that track changes over time in specified variables. The indicators are closely linked to program and project goals and objectives regarding women, and are designed to measure three factors: (1) the degree of women's participation both as participants and as beneficiaries; (2) the extent to which women can manage project demands (as measured, for example, by women's time use according to task), and (3) project impact on women (as measured, for example, by the sources and amounts of women's income). The GIS is organized into three levels of specificity to allow the evaluation of Mission performance at the national, sectoral, and project levels. Objectives of women's participation in projects and positive project impact on women and

accompanying indicators are specified. Recommendations for collecting baseline data and sources of ethnographic information are also given.

**019**

**PN-ABG-702**  
**MF \$2.16/PC \$13.65**

## **Participation of women in A.I.D.'s training programs for Asia and the Near East**

Cotter, Jim; Held, Ann  
U.S. Agency for International Development. Bur. for Europe and Near East  
Dec 1990, vii, 15 p. + 3 appendices: charts, statistical tables, En  
3980249

Women make up a disproportionately low percentage of A.I.D. participants from the Asia and Near East region in U.S. and third-country training programs, accounting for only 14.8% (Asia) and 17.6% (Near East) in 1989. This report, based on two subregional reports on the subject (PN-ABF-738/739), identifies the primary reasons behind this imbalance. (1) Very few women are employed in A.I.D.'s traditional focus groups (i.e., mid-level public sector technicians, managers, and policymakers). (2) Few women earn university degrees in the scientific and technical areas, since these fields fall outside the cultural norm for women. (3) Dissemination of participant training information has often been limited to male-dominated host government channels. (4) Few women meet English language requirements. (5) Cultural and social mores, especially in Islamic areas, prohibit mixed-gender travel, living and, in some cases, study facilities. Domestic responsibilities do not pose a significant hindrance, since most women eligible for overseas training are from higher income families and can afford household help. The report also examines constraints to women's participation in local training. In this case, household responsibilities are considered a major impediment, since rural women tend to have large families and demanding agricultural workloads. Moreover, activities not related to the home environment are considered inappropriate and morally questionable. The report also cites taboos on women's interaction

with non-related males, including male instructors, as constraints to women's participation. Recommendations address these constraints; a set of guidelines is provided in a follow-on document (PN-ABG-704). Appendices include case studies of Bangladesh, Egypt, India, Indonesia, Jordan, Morocco, Nepal, Pakistan, and Yemen.

**020**

**PN-ABH-005**  
**MF \$1.08/PC \$4.42**

## **Women in economic development (WIED): current status and potential for provision of support to womens [i.e., women's] organizations and independent entrepreneurs in the West Bank and Gaza**

Oldham, Linda  
Dec 1990, 30 p., En  
3980159

Economic programs for women in the West Bank and Gaza Strip are essentially of two types: (1) relief projects designed to provide some income, often for women whose husbands have died or been imprisoned, and (2) projects intended to foster viable businesses. A study of the projects indicates that they are operating in nearly total isolation from the commercial and industrial sectors of the society and have little linkage with emerging business support institutions. The central focus of the projects is small-scale industry, with commerce as an adjunct to help insure a marketing outlet for production. The women leading the projects are appointed from within the founding organizations and lack business expertise. No efforts have been made to take advantage of the skills of female entrepreneurs in the society at large. It is recommended that an indigenous, women-operated center be established to provide business support services to women's production programs and enterprises in the West Bank and Gaza. The center should provide formal business training, provide follow-up consultancies, undertake basic market studies, and channel technical, training, and other resources into the women's economic sector.

# ECONOMICS

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021

**PN-AAX-241**  
MF \$1.08/PC \$2.99

## **A.I.D. economic policy reform program in The Gambia**

van der Veen, Jan H.; Hobgood, Thomas D.; Marlett, Melanie J.

U.S. Agency for International Development. Bur. for Program and Policy Coordination. Center for Development Information and Evaluation

Sep 1990, viii, 16 p., En

A.I.D. impact evaluation report, no. 76  
6350228; 6350231

In 1987, A.I.D. provided The Gambia with a \$6 million grant to support a series of financial and agricultural marketing reforms as part of a multi-donor economic reform program. The sectoral reforms were designed to encourage greater private sector involvement in productive activities and discourage the Government from regulating and controlling activities that could most efficiently be done by the private sector. Specifically, the Government of The Gambia agreed to: implement appropriate policies regarding term lending, agricultural credit, and development lending; enforce market-determined interest rates; prohibit preferential access to credit; and ensure equal allowances for all buyers involved in agricultural marketing. After only two years, it is too early to determine the effects of this complex policy reform program. However, it is evident that the program faces a number of barriers: (1) an inadequate amount of technical assistance and institutional development; (2) poor donor coordination; (3) continued government control over fertilizer grants, which undermined the liberalization of groundnut marketing; (4) high interest rates; and (5) resistance to market reforms by government organizations and parastatals. On the other hand, several external factors have improved the economic climate and helped the reform process, including good weather, which helped improve agricultural production; a halt in the secular deterioration of the terms of trade; a strong pro-rural political bias; and satisfactory relations with neighboring Senegal.

022

**PN-AAX-242**  
MF \$1.08/PC \$5.20

## **A.I.D. economic policy reform program in Senegal**

Lowenthal, Jim; Chambas, Gerard; et al.

U.S. Agency for International Development. Bur. for Program and Policy Coordination. Center for Development Information and Evaluation

U.S. Agency for International Development. Bur. for Africa. Senegal

Sep 1990, x, 18 p. + 4 appendices: statistical tables, En  
A.I.D. impact evaluation report, no. 77  
6850292

In 1986, A.I.D. initiated a program to reform Senegal's system of tax and revenue administration. The program was designed to complement industrial sector reforms managed by the World Bank, since industrial stagnation was largely attributed to years of heavy tariff protection and high taxes on both the agricultural sector and consumers. A.I.D. contributed \$14 million in cash transfer funds and \$1 million in technical assistance to promote the reforms, almost all of which were implemented by 1988. The Government of Senegal substantially reduced quantitative restrictions on imports; implemented a new commercial investment code; reduced across-the-board tariff protection; and designed a dramatically revised tax revenue system that included major provisions for taxing urban real estate. Contrary to expectations, the immediate impacts of the reforms were negative—economic activity in the formal industrial sector slowed and government revenues seriously declined. Private firms, accustomed to decades of protection, had made no provisions for competing in an international market. Their competitiveness was also weakened by an unfavorable national political and economic climate, increased administrative fraud following the reduction in customs rates, and the failure of donors and the Government of Senegal to implement additional, complementary reforms. Despite these constraints, the reforms are now showing signs of the desired effects, particularly with regard to promoting private sector com-

petitiveness and reversing the decline in government revenues. It is expected that the medium-term impacts of the reforms will meet the program goals.

**023**

**PN-ABG-002**  
MF \$1.08/PC \$2.60

## **Recycling old debt for new ventures: debt-for-nature and debt-for-development swaps**

Chew, Siew Tuan

U.S. Agency for International Development. Bur. for Program and Policy Coordination. Center for Development Information and Evaluation  
Jan 1991, 20 p.: statistical tables, En  
Innovative development approaches, no. 4

Financial transactions popularly known as “debt-for-nature” or “debt-for-development” swaps were introduced in the late 1980’s as an alternative means of alleviating Third World debt. A debt swap involves a third party, usually a non-governmental organization (NGO), acquiring a developing country’s hard currency debt from foreign banks and exchanging it with the debtor country government for local currency funds to finance conservation or development projects or local investment. This paper discusses the concept and process of debt-for-nature and debt-for-development swaps, A.I.D.’s support for these mechanisms during 1987–90, a Congressional Mandate for increased debt swap funding in the future, and key implementation and macroeconomic issues. Efforts to promote debt conversions are impeded by two major factors: (1) the capacity of NGO’s to address the complex financial and legal issues involved; and (2) the potential macroeconomic problems (e.g., inflation) resulting from large-scale debt conversion. However, these problems are not insurmountable, as host countries and A.I.D. can take steps to mitigate them. Experience thus far suggests that well-designed debt conversion programs can provide a financially viable means for recycling Third World debt. However, debt swaps are clearly not a panacea for solving all debt problems in developing countries. Much of the debt is not traded in the secondary market and therefore

cannot be retired through debt swaps. Further, there is a limitation to the extent to which debt swaps can meet the interests of all parties involved.

**024**

**PN-ABG-215**  
MF \$2.16/PC \$15.34

## **Horticultural exports from Jordan: prices, policies and prospects**

Scobie, Grant M.; Youngblood, Curtis E.; Jabarin, Amer Sigma One Corp.

U.S. Agency for International Development. Bur. for Asia and Near East. Jordan (Sponsor)  
Jan 1990, 101 p.: charts, statistical tables, En  
2780274

Due to declining oil prices in the 1980’s, Jordan has experienced a decrease in remittances and other types of financial support from its oil-producing neighbors. To rebuild its foreign exchange reserves, the country needs to strengthen the traded goods sector. This study analyzes the prospects for expansion of Jordanian horticultural exports, focusing on macroeconomic policies which are not directly related to the horticulture sector but which are crucial determinants of the real exchange rate. Chapter II reviews recent developments in Jordan’s macroeconomic circumstances, together with plans and targets for structural adjustments. Chapter III analyzes product and input prices from the farm to the foreign markets, while Chapter IV reviews the special characteristics of Jordan’s labor market, including the impact of devaluations of the Jordanian dinar. Chapter V summarizes the impact of changes in the price of foreign currency on the comparative advantage of Jordanian horticulture. The final chapter develops a model which predicts future exports of vegetables under various exchange rate and macroeconomic policy scenarios. Results show that exports could grow by as much as 11% annually over the next five years if Jordan pursues policies to reduce the fiscal deficit and ensure that the exchange rate reflects its true value. However, if policies permit an appreciation of the real exchange rate (as happened from 1976 to 1988), real exports could decline by more than 50% over the same period.

025

**PN-ABG-287**  
MF \$2.16/PC \$16.51

## **Critical issues for American investors in Cameroon**

Business International Corp.  
U.S. Agency for International Development. Bur. for  
Africa. Cameroon (Sponsor)  
Aug 1990, 124 p.: statistical tables, En

Many aspects of Cameroon's investment environment are favorable to U.S. investors. This report provides an in-depth survey on investment in Cameroon, discussing the country's structural adjustment program, the status of the economy and the financial sector, the external trade and payments systems, debt, a recently approved free zone initiative, the regulation of labor and of foreign investment, taxation, intellectual property rights, and investment opportunities. Foreign investment in Cameroon is strongly urged. The country's extensive natural resource base, good infrastructure, central location on the African continent, active port in Douala, well-educated labor force, and its official policy of bilingualism are among its most important assets. Further, its package of incentives and streamlined investment approval and customs procedures make Cameroon attractive to the foreign investor. U.S. firms considering investment in Cameroon should give special consideration to the possibilities created by the new Free Zone Regime (expected to be competitive with the best export-processing zone regimes in the world), especially for export to the European market. It is noted that export opportunities (agriculture, forestry, textiles, tourism, and mining) are currently far more attractive than domestic opportunities. Appendices cite the Free Zone Regime legislation and the general scheme of preferences, summarize the tax system, list goods subject to quantitative restrictions, and outline A.I.D.'s strategy for Cameroon.

026

**PN-ABG-621**  
MF \$1.08/PC \$6.63

## **Report on AMIS trade and investment promotion activities in Bolivia**

Abbott, Richard  
University of Idaho. Postharvest Institute for Perishables  
Abt Associates, Inc.  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Rural and Institutional  
Development (Sponsor)  
U.S. Agency for International Development. Bur. for  
Latin America and the Caribbean. Bolivia (Sponsor)  
Jan 1991, 13 p. + 5 appendices, En  
9365447

Between April and December 1990, an A.I.D. project in Bolivia focused on mobilizing U.S. agribusinesses to assist in inducing farmers in the Chapare and Valles Altos regions to cease growing coca in favor of other crops. The expected role of the U.S. firms was to assist Bolivian enterprises in meeting export standards, commit to purchasing some of the output of Bolivian agro-industrial enterprises, and form joint ventures with Bolivian entrepreneurs. Five U.S. firms participated in trade and investment missions to Bolivia to assess the overall business conditions and the potential for growing, processing, and marketing of various products. Participating companies included Del Monte USA, Basic American Foods, R.J. Reynolds, PPI Del Monte Tropical Fruit, and McCormick and Co. In general, the companies found Bolivia to be very dependent on coca growing and processing while willing to find alternative sources of income. They also found the country's physical infrastructure inadequate at present to the needs of the business sector. Specifically, the companies assessed five potential small-to medium-scale agro-industrial ventures. Of these, only tobacco elicited an investment plan from the U.S. company. In three other cases—tropical fruit juices and concentrates, fresh garlic, and tropical fruit—the U.S. companies offered technical assistance while declining to invest. In the final case—spices and colorants—the U.S. firm determined that further study was needed. Individual company reports are appended.

**027**

**PN-ABG-703**  
**MF \$1.08/PC \$11.96**

**Investing in human capital: Poland's transition to a market economy**

Warman, Arthur L.; Harmon, David; Gilson, Jean  
 Development Alternatives, Inc.

U.S. Agency for International Development. Bur. for  
 Asia, Near East and Europe (Sponsor)

U.S. Agency for International Development. Bur. for  
 Asia, Near East, and Europe. Poland (Sponsor)

Jul 1990, xiii, 60 p. + 3 annexes, En  
 1800249

Poland's transition to a market economy will require managers and entrepreneurs capable of operating in a radically new environment. This report describes management training needs of three key clusters of private enterprises—small- and medium-scale enterprises, the banking/finance sector, and the housing and agribusiness sectors—and the capacity of training institutions and business support organizations to meet these needs. Institutions assessed include universities and other institutes of higher education, specialized and Western-oriented training institutions, local management training institutions, and business associations.

Major findings are as follows. (1) Small-and medium-scale enterprises are the heart of Poland's private sector and consist of two different clusters: traditional entrepreneurs, who desire only practical, not formal training; and "new-style" entrepreneurs, who have much interest in developing advanced business skills. (2) The banking and finance sector has enormous technical assistance and training needs, ranging from office operations to the establishment of a modern capital market. What is most important to the private sector, is that banks have the capacity to provide timely credit and carry out normal depository and clearing transactions rapidly. (2) The housing and agribusiness sectors operate with 30–40 year-old technology and equipment, have little access to information, and lack necessary business skills in such fields as management, marketing, and finance. (4) Many training and business support organizations are brand new, and those which

previously existed must reorient their curricula, pedagogy, and faculty to meet the demands of a market, rather than a command, economy. Recommendations lay out a strategy to address the above-noted needs in the short, medium, and long term, with particular emphasis on immediate needs.

**028**

**PN-ABG-866**  
**MF \$1.08/PC \$10.27**

**Investing in human capital: Hungary's transition to a market economy**

Angell, Kenneth J.; VanSant, Jerry  
 Development Alternatives, Inc.

U.S. Agency for International Development. Bur. for  
 Science and Technology. Ofc. of Rural and Institutional Development (Sponsor)

Jul 1990, xi, 58 p. + 3 annexes, En

Hungary's management training needs are assessed to help A.I.D. develop a targeted and effective training program to assist in Hungary's transition to a market-based, private sector-led economy. The report: (1) examines the specific needs of three groups—entrepreneurs and small businesses, the financial sector, and medium and large enterprises in the agribusiness, industrial, and commercial sectors; (2) assesses 17 Hungarian training institutions (7 institutes of higher education, 2 specialized Western-oriented institutions, 7 established management training institutions, and a new "distance learning" institutions; and (3) recommends a multi-year strategy to implement the proposed management training program. A.I.D. should aim at a multiplier effect, either by leveraging other funding or by building specific capacities in key Hungarian institutions. Scholarship and technical support to institutions should be defined in terms of time and expectations and should stress the potential for immediate impact, while not ignoring long-term benefits. Given Hungary's strong and varied training infrastructure, the goal of assistance should be to upgrade the teaching quality of existing institutions rather than to select and train a small cadre of Hungarian managers or create a new institution. Support to the public sector should stress government units with a direct impact on private sector performance, e.g., regulatory agencies, whereas support to entrepreneurs, who have

less immediate need for traditional management training, should focus on improving access to information and networking services. The program as a whole should target Hungarian firms as distinct from foreign joint ventures and should be coordinated with efforts of other donors, especially the Group of 24.

**029**

**PN-ABH-006**  
**MF \$1.08/PC \$12.22**

## **Modernization of regulation and supervision of LDC financial institutions: final report**

Price Waterhouse. Washington Regulatory Advisory Services

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

8 Feb 1990, vi, 27 p. + appendices, En  
9400014

In response to a confluence of forces in the global economic environment and to innovations in technology and telecommunications, many developing countries are liberalizing their financial systems. The success of this reform movement is jeopardized, however, by insufficient financial regulatory and supervision systems. This report examines the current status of such systems in developing countries and presents guidelines for strengthening them through prudential regulation and supervision. The following specific needs are identified: creation of an effective legislative and regulatory framework for financial supervision; specific legislation for dealing with problem institutions; accounting standards and forms for consolidated prudent reporting; off-site supervisory examination programs, including computerized systems for analyzing bank reports; strengthened roles for external auditors; supervisory staff training; and the establishment of credit risk bureaus. Sources of international technical assistance and training, including A.I.D.'s Financial Sector Development Project, are also identified.

**030**

**PN-ABH-022**  
**MF \$1.08/PC \$3.77**

## **The other unification: economic prospects in a United Yemen**

Addleton, Jonathan

U.S. Agency for International Development. Bur. for Europe and Near East. Yemen

Dec 1990, [24]p.: charts, En  
2790083

The new, united Yemen is a study in contrasts. The North represents nearly 80% of the total estimated population of 10 million, the South nearly 66% of the estimated total land area of 528,000 sq km. The North brought to unification greater agricultural and industrial potential

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*The economic prospects of a united Yemen initially seemed fairly bright. The Iraqi invasion of Kuwait darkened this picture considerably.*

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(much of it, paradoxically, in private sector hands), as well as a fairly well developed transportation network and substantial oil revenues; the South brought a more educated work force and relatively unexplored oil reserves. Despite the country's small and basically service-oriented economy and its poor ratings in terms of leading social indicators such as life expectancy and child mortality, the economic prospects of a united Yemen initially seemed fairly bright. The Iraqi invasion of Kuwait darkened this picture considerably. First, long-term donor relationships were immediately threatened. Aid from Kuwait and Iraq were cut off, and relations with other donors were strained by Yemen's support of Iraq, a position heightened by Yemen's highly visible tenure on the U.N. Security Council. Second, remittance income from Kuwait, Iraq, and Saudi Arabia is threatened and will almost certainly decline; half a million migrant workers have already returned from Saudi Arabia. Third, U.N. sanctions cut off Yemen's trade with Iraq and Kuwait. Fourth, the crisis has severely diminished Yemen's attractiveness as an investment opportunity. Now more than ever Yemen's economic future

hinges on the successful development of its oil and gas reserves. The one positive effect of the Gulf crisis for the Yemen economy is the rise in oil prices—provided these are sustained.

**031**

**PN-ABH-032**  
MF \$2.16/PC \$15.60

## **A.I.D. and African capacity building**

Nelson, Courtney; Biggs, Tyler; et al.  
Harvard University. Harvard Institute for International Development  
U.S. Agency for International Development. Bur. for Africa (Sponsor)  
Sep 1990, v, 88 p. + 3 appendices, En 6980463

There is a startling fragility to economic policymaking and management systems in Africa. This report examines a subset of these systems and outlines a set of action recommendations for useful A.I.D. intervention. Treated in detail are economic policymaking and management capabilities in Botswana, Tanzania, Zaire, and Senegal. Treated more briefly are the capabilities of the Southern African Development Coordination Conference, the African Economic Research Consortium, the Eastern and Southern Africa Management Institute, and the Ivorian Center for Economic and Social Research. Major conclusions are as follows. (1) Throughout much of the continent the demand for economic analysts is growing faster than the supply, necessitating major investments to improve training in economics and related fields. Government and university personnel also need considerable retraining in analytical skills and techniques. (2) Although corruption and poor performance on the part of civil service personnel often render sound policies useless, inadequate implementation procedures are a major problem. Investments in policy implementation activities could have as significant a long run impact as the policies themselves. (3) Improving government service must be complemented by private sector stimulation in generating economic growth. (4) Regional institutions in Africa have a checkered history, but can fruitfully complement one another. (5) Resident advisors and visiting consultants will have an important

role to play for some time to come. These findings suggest two principal types of interventions: those designed to increase the supply of policy analysts and managers, and those designed to improve the use of current resources. Since this task is complicated by the geographical realities of Africa, ways are needed to maximize the use of regional organizations.

**032**

**PN-ABH-076**  
MF \$4.32/PC \$39.00

## **Adjustment postponed: economic policy reform in Senegal in the 1980's**

Elliot Berg Associates  
Development Alternatives, Inc.  
U.S. Agency for International Development. Bur. for Africa. Senegal (Sponsor)  
Oct 1990, xiii, 253 p. + 2 annexes: statistical tables, En 6850294

Despite a democratic tradition, the absence of civil unrest, and large amounts of tied aid during the 1980's, Senegal has been unable to implement structural reform. This report, while not ignoring the economic impact of the reform effort in Senegal, focuses on the design and implementation of the effort. Individual chapters are devoted to: macroeconomic reform, parastatal sector reform, agriculture sector reform, industrial sector reform, the French and U.S. structural adjustment programs, and the sociopolitical dimensions of adjustment. Three specific reasons for Senegal's failure to adjust structurally are pointed out. (1) Many Senegalese officials view policy reforms with suspicion, unconvinced of their suitability and the proposed pace of reform. (2) Insufficient donor capacity to supervise and manage complex reforms has led to serious mistakes in reform design and implementation. (3) The large inflow of aid money has created a no-sanctions environment that eroded political will to reform. It is recommended that donors not only eliminate the past emphasis on explicit conditionality in order to build up local ownership, but that as far as possible they separate assistance from policy dialogue, e.g., by stressing project rather than resource transfer assistance.

033

PN-ABG-676  
MF \$1.08/PC \$4.55

## Technology: the key to increasing the productivity of microenterprises

Jean, Andy; Hyman, Eric; O'Donnell, Mike  
Development Alternatives, Inc.

U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Rural and Institu-  
tional Development (Sponsor)

Nov 1990, iii, 29 p., En  
9365448

Successful microentrepreneurs are often those involved in technology innovation, adaptation, and dissemination. However, such efforts are limited by inadequate resources, poor communications, uncertain markets, and a nonsupportive policy environment. This paper discusses the importance of technologies to microenterprise expansion and offers guidance on providing technological assistance to microenterprises. It states that technological change can enable microenterprises to reduce costs through faster production, labor time savings, substitution of cheaper materials, lower fuel costs, and increased process efficiency. Better informed selection and organization of equipment, tools, and labor can reduce working and fixed capital requirements and help entrepreneurs use credit more effectively. New technology can raise product output, quality, consistency, and packaging, and can also increase marketing power by diversifying the raw material base and increasing product shelf-life. The report recommends microenterprise support programs which work with entrepreneurs, their suppliers, and customers to identify resources and constraints for increasing productivity. Guidelines for designing support projects (systems approach), strengthening communications channels for technology transfer, and providing technological training, marketing assistance, and policy support are also presented. An appendix contains three case studies of technologically innovative microenterprises: micro-hydro power in Nepal, palm oil expellers in central and west Africa, and charcoal stoves in Kenya.

034

PN-ABG-916  
MF \$1.08/PC \$11.31

## Training resources for small enterprise development from the community of SEEP network agencies

Sandler, Joanne, comp.; Edgcomb, Elaine, ed.  
Private Agencies Collaborating Together. Small Enter-  
prise Education and Promotion Network  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Rural and Institu-  
tional Development (Sponsor)  
1990, v.p.: ill., charts, En  
9365448

Brief descriptions are provided of 34 training manuals developed by member agencies of the Small Enterprise Education and Promotion Network for use in Third World small enterprise development and credit programs. Most (31) of the manuals deal with either business management or credit management, the other few with group building and training of trainers. The target groups of the manuals vary: 10 are oriented toward women and/or illiterate groups, 9 toward pre-entrepreneurs, 18 toward micro-entrepreneurs, and 10 toward small- or medium-sized businesses. In terms of methodology, about half are oriented toward workshop settings or group training and half towards self-instruction or use as an operational manual. A large number of the workshop manuals employ participatory and experiential methodologies (e.g., case studies, board games, site visits, role plays, poster stories, sociodramas, and simulations). Manuals on financial record keeping, management, and/or analysis use more traditional techniques and standard step-by-step processes. Each manual is given a 2-page description summarizing, in word and graphic symbol, its content and methodology. Also noted are the area where the manual was originally developed or field tested and its adaptability to other settings. Information on the cost and availability of the manuals—not all of which are published books—is also provided.

035

PN-ABH-118  
MF \$1.08/PC \$4.16

## Subsector approach to small enterprise promotion and research

Boomgard, James J.; Davies, Stephen P.; et al.  
Development Alternatives, Inc.  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Rural and Institu-  
tional Development (Sponsor)  
Jan 1991, v. 26 p.: charts, En  
9365448

Most small enterprise research has been descriptive rather than diagnostic. While this approach has been instrumental in making the case for small enterprise promotion, it has offered only limited direction on how to proceed with promotion efforts. This paper introduces a diagnostic research methodology designed to help target small enterprise development efforts by focusing on commodity-specific subsectors. Such an approach would place considerable weight on understanding the interaction—both competitive and complementary—among firms of different sizes and in different functions, including those involved in manufacturing, commerce, and services. Moreover, the approach acknowledges the potential value of indirect interventions, i.e., those that route assistance to micro- and small enterprises via intermediaries. Even when assistance is provided directly, supporting research using the subsector approach permits an understanding of the competitive context in which the target enterprises operate. The report illustrates the subsector approach through case studies on sorghum beer production in Botswana and rattan furniture in Indonesia. The concluding section identifies the strengths and weaknesses of the methodology.

036

PN-ABH-119  
MF \$1.08/PC \$8.19

## Dynamics of microenterprises: research issues and approaches

Liedholm, Carl; Mead, Donald C.  
Development Alternatives, Inc.  
Michigan State University  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Rural and Institu-  
tional Development (Sponsor)  
Jan 1991, iv, 60 p., En  
9365448

A better understanding of the dynamics of microenterprise growth can help in targeting microenterprise assistance programs. This paper examines these dynamics at four levels: the individual; the enterprise; the economic subsector; and the economy as a whole, including intersectoral linkages. For each level, the paper reviews existing theoretical approaches and empirical information, outlines major issues, and suggests research questions and analytical approaches. (1) The section on the individual focuses on the personal characteristics of the entrepreneur, the interactions between the entrepreneur's business and his/her other activities; the movement back and forth between activities as a worker and as an entrepreneur; and gender issues. (2) At the firm level, the paper explores the life cycle of firms with respect to firm size, age, location, and subsector, and the characteristics of the entrepreneur. Also discussed are methods for collecting and analyzing data. (3) At the subsectoral level, the paper examines patterns of change among firms engaged in producing and distributing related products, with particular attention to mechanisms that link the stages in the production process. Frames of reference include suppliers of raw materials and of intermediate products as well as producers of finished products. (4) At the intersectoral level, the study examines actual or potential sources of dynamism in the economy and explores the extent to which these sources reinforce intersectoral linkages. At the related macro level, the central interest is in the changing relative importance of enterprises of different sizes and types.

037

PN-ABG-170  
MF \$1.08/PC \$6.11

## Consumption effects of agricultural policies: what do we know?—a review of USAID/Nutrition Economics Group research

Rogers, Beatrice Lorge  
Tufts University. School of Nutrition  
U.S. Dept. of Agriculture. Ofc. of International Cooperation and Development. Technical Assistance Div.  
Nutrition Economics Group  
U.S. Agency for International Development. Bur. for Science and Technology. Ofc. of Nutrition (Sponsor)  
30 Sep 1989, viii, 39 p., En  
9310262

Findings of a 12-year research project on the relationship between agricultural policies and nutritional status in 30 countries are herein presented. Three types of policies were studied: (1) producer-oriented (commodity price

supports, input subsidies, and technology); (2) consumer-oriented (food price subsidies and food stamps); and (3) marketing (infrastructure construction, promotion of competition, and elimination of barriers). Indirectly related economic policies were also studied, including exchange rate overvaluation, deficit spending, taxation, and trade. The report presents the following major conclusions. (1) Agricultural policies can be entirely counteracted by other economic policies. (2) Population groups are affected differently by policies, depending on income, occupation, and consumption patterns. (3) Policy implementation has as great an effect on outcome as policy design. (4) The time required to procure and prepare food is as important as price in determining consumption patterns. (5) Producer-oriented policies depend on the availability of complementary resources (land and labor). (6) Consumer-oriented policies can be effective in raising household consumption levels, but do not guarantee individual nutritional adequacy. (7) The effect of household income on food consumption is affected by the form, source, and locus of the income. (8) Marketing interventions can make long-term improvements in the stability of food prices and farm incomes.



*Consumer-oriented agriculture policies can be effective in raising household food consumption levels, but do not guarantee individual nutrition adequacy.*

038

**\*PN-ABG-277**  
MF \$3.24/PC \$26.00

## Training manual on vertebrate pest management

Brooks, Joe E., ed.; Ahmad, Ejaz, ed.; et al.  
U.S. Dept. of Agriculture. Animal and Plant Health  
Inspection Service. Denver Wildlife Research Center  
U.S. Dept. of Agriculture. Animal and Plant Health  
Inspection Service  
National Agricultural Research Centre  
Pakistan. Agricultural Research Council  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Agriculture  
(Sponsor)  
1990, xiii, 206 p.: ill., maps, statistical tables, En  
9364173

*\*Also available from: Pakistan Agricultural Research  
Council, Islamabad, Pakistan*

In Pakistan, vertebrate pests, such as rats, birds, wild boars, and porcupines, feed on standing cereal crops and stored commodities, causing severe economic losses each year. This training manual, compiled from a series of lectures given at the National Agricultural Research Centre in Islamabad, provides a substantive guide to vertebrate pest management in the country. While written primarily for the Pakistani context, much of the material is general and should prove useful to workers in adjacent countries of the South Asian region. The manual contains 36 chapters, each dealing with a specific aspect of vertebrate pest management. The first 5 chapters discuss general principles of vertebrate pest management. The remaining chapters describe diseases borne by vertebrate pests (1 chapter) and the major vertebrate pests: rodents (19 chapters); minor lagomorph pests (Afghan pika and desert hare—2 chapters); wild boar (4 chapters), and birds (5 chapters). Indexes of subjects and of scientific names are included.

039

**PN-ABG-326**  
MF \$2.16/PC \$17.03

## Africa Bureau sector strategy: a strategic framework for promoting agricultural marketing and agribusiness development in Sub- Saharan Africa

U.S. Agency for International Development. Bur. for  
Africa. Ofc. of Technical Resources  
Oct 1990, vii, 38 p. + 3 annexes, En

Despite its poor record to date, Africa has a proven comparative advantage in the production and marketing of certain commodities, as well as a potential for marketing other, higher-valued crops. Development of the sector could therefore have a significant beneficial impact on income, domestic consumption, food security, and foreign exchange earnings. This potential is severely constrained, however, by the inefficiency of existing marketing systems. This report outlines an A.I.D. strategic framework which addresses this inefficiency by focusing on three key system constraints: (1) macroeconomic and sectoral policies and regulations affecting marketing incentives; (2) the infrastructure necessary for marketing expansion; and (3) the capability of agribusiness and others to participate in marketing activities. Elements of the strategy include: (1) provision of management and technical training for public and private sector personnel; (2) incorporation of marketing and agribusiness analyses into Mission sector assessments; (3) Mission support for interventions to remove the most pressing constraints to market development; and (4) development of an integrated and flexible monitoring and evaluation system. Indicators to help Missions measure the impact of program and project interventions are included.

040

PN-ABG-522  
MF \$6.48/PC \$68.77

## **Role of agriculture in Ecuador's economic development: an assessment of Ecuador's agricultural sector**

Whitaker, Morris D.; Colyer, Dale; Alzamora, Jamie  
Science Foundation. Institute of Agricultural Strategies  
U.S. Agency for International Development. Bur. for  
Latin America and the Caribbean. Ecuador (Sponsor)  
7 Jun 1990, xxxiv, 504 p.: charts, statistical tables, En

Ecuador's macroeconomic policies have largely discriminated against the agricultural sector, favoring instead import substitution industrialization. This study looks at the role of agriculture in Ecuador, identifies the sector's major constraints, and recommends future steps for improved growth and development. The analysis is based on three fundamental concepts—the induced innovation model of agricultural development, the pervasive effect of macroeconomic policies on agricultural growth, and the emergence of a new global economic order. Topics include: an overview of theoretical constructs; macroeconomic and sectoral policies; agricultural growth, trade, and nutrition; renewable natural resources; population growth and the labor market; the production milieu and factor use; public irrigation projects; marketing; credit; social institutions and gender; public institutions; and the human capital and science base. The study concludes that the principal challenge facing Ecuador's economy is transforming an agricultural sector which is low in productivity and dependent on natural resources into a highly productive, scientific-based sector. Two key recommendations are provided. (1) Alter the inward orientation of the macroeconomic policy matrix by reducing and eliminating trade barriers, reducing government expenditures and deficits, freeing capital markets, and unifying the exchange rate. (2) Strengthen the scientific base for agriculture by making research autonomous, paying competitive salaries for scientists, increasing research funding, consolidating extension services, technical high schools, and university faculties, linking national and international science bases, and improving rural education.

041

PN-ABG-562  
MF \$2.16/PC \$14.30

## **U.S. funded rural finance activities in Latin America and the Caribbean, 1942–1990: a new strategy for the 1990's**

Adams, Dale W.  
U.S. Agency for International Development. Bur. for  
Latin America and the Caribbean. Ofc. of Development Resources  
13 Jul 1990, iv, 103 p., En

Rural finance programs have been an important part of U.S. bilateral assistance efforts in Latin America for several decades. This study examines the performance of these activities from 1942–1990 and outlays a new strategy for the Agency to pursue during the 1990's. A.I.D.'s most effective efforts have been in encouraging liberalization of financial market policies. While some interest rates are still too low and inflexible in the region, several countries have adopted relatively flexible interest rate policies that are related to market forces. In addition, the Agency has largely backed away from using financial markets to handle income transfers, placed more emphasis on viable financial institutions, and sponsored research in a few countries that is useful in policy dialogue and financial market assessments. A.I.D. has also been innovative in applying new thinking about rural finance in pilot projects, especially in the Dominican Republic. A.I.D. has made less progress in stimulating deposit mobilization, in developing equity markets, in encouraging macroeconomic policies more favorable to vigorous financial markets, and in moving away from targeted lending. Further, the extremely large number of A.I.D. projects in Latin America with targeted credit components are troublesome to manage, yield results that are suspect, and cause substantial wear and tear on financial markets. In the future A.I.D. should: (1) add a position in A.I.D./W to coordinate and backstop mission programs in rural finance; (2) undertake less targeted lending; (3) prepare sector studies of rural financial markets, including informal mechanisms; (4) design sector projects aimed at improving overall performance of rural financial markets; (5) emphasize deposit

mobilization in rural finance programs; and (6) conduct long-term dialogue with local decision makers on controversial issues in rural finance.

**042**

**PN-ABG-756**  
MF \$1.08/PC \$9.23

## Malawi fertilizer subsidy reduction program: the impact of the African economic policy reform program

Atukorala, Vimal; Batchelder, Alan; et al.

U.S. Agency for International Development. Bur. for Program and Policy Coordination. Center for Development Information and Evaluation

Dec 1990, 26 p. + 6 annexes: charts, statistical tables, En

CDIE working paper report, no. 143  
6120225; 612K601

In 1985, A.I.D. initiated a policy reform program with the Government of Malawi (GOM) which aimed to reduce fertilizer subsidies and to cut the foreign exchange costs of fertilizer imports by substituting high analysis fertilizer (HAF) for low analysis fertilizer (LAF). In exchange, the GOM would receive cash grants totalling \$15 million in three tranches. Although conditions for the first two tranches were met (cutting GOM expenditures a modest 0.2%), the GOM refused to cut the subsidy to meet the 1987/88 conditionality, and the program was canceled without the release of the third \$5 million tranche. The GOM decision was based on the belief that transportation cost increases, the infusion of Mozambican refugees, and lagging maize production required a higher subsidy to moderate fertilizer price increases. Currently, the GOM is committed to ending the subsidy, mainly because of political conviction that too much of its benefits (up to 20%) leaks to large estates. On the positive side, the GOM has incrementally increased the HAF share of fertilizer imports and has passed all cost savings on to smallholder buyers. This action resulted in a 100% increase in fertilizer nutrient purchases and a 50% increase in hybrid maize production between 1984 and 1990. By 1987/88, savings from HAF substitution reached k8.0m, approaching the k8.9m spent that year on fertilizer subsidies. On a larger scale, however,

the reform program did not affect other GOM policies—e.g., restriction of burley tobacco cultivation to estates—that seem to be depressing returns to the smallholder majority while increasing returns to the large estates. A reduction in this bias against smallholders would require broad economic policy reform.

**043**

**\*PN-ABG-770**  
MF \$1.08/PC \$2.86

## Transformation of a Laguna village in the two decades of green revolution

Hayami, Yujiro; Kikuchi, Masao; et al.

International Rice Research Institute

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

Aug 1990, 21 p.: statistical tables, En  
936411102

*\*Also available from: International Rice Research Institute, P.O. Box 933, 1099 Manila, The Philippines*

The rice belt of Laguna Province, Philippines (popularly known as the heartland of the Green Revolution for its early adoption of rice varieties) has experienced dramatic economic and social changes during the last two decades. This report utilizes data from five surveys conducted between 1966–87 in a typical village to illustrate a pattern of socioeconomic change shared by many irrigated rice areas in the country. Four major forces were found to have promoted change: (1) increasing population pressure on limited land, (2) advances in rice production technology, (3) land reform programs, and (4) the influence of urban economic activities.

Rapid population growth, resulting from both natural reproduction and immigration, has resulted in sharp reduction in farmland area per villager. The increased labor demand deriving from the adoption of modern rice technology has encouraged immigration from surrounding upland areas. At the same time, land reform programs have transformed traditional sharecroppers into leasehold tenants. Rents fixed at below-market rates have resulted in an inactive land-rental market and have closed opportunities

# AGRICULTURE

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for landless agricultural workers to become tenant farmers. As a result, the number of landless worker households has increased significantly both in absolute terms and relative to the number of farm households. The average income of large leaseholders increased dramatically in real terms during 1974–87, despite major decreases in the real price of rice. This was due primarily to an increasingly larger share of land rent accrued to them under land reform regulations. Meanwhile, landless laborers were able to maintain their relative household income, although income per family member tended to decline. Finally, increases in nonfarm employment opportunities within and outside the village helped prevent real incomes per capita from declining. (Author abstract, modified)

**044**

**PN-ABG-776**  
**MF \$4.32/PC \$43.16**

## **Export crop competitiveness: strategies for sub-Saharan Africa—final report of the African cash crop competitiveness strategy study**

Kristjanson, Patricia; Newman, Mark D.; et al.  
Abt Associates, Inc.

U.S. Agency for International Development. Bur. for Africa. Ofc. of Development Planning (Sponsor)

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

Jul 1990, 163 p. + appendices: charts, statistical tables, En  
9364084

The competitiveness of the sub-Sahara's traditional export crops are examined through case studies of cotton, coffee, and peanuts in Cameroon, Kenya, The Gambia, Senegal, Tanzania and Zimbabwe. The study complements traditional studies of comparative advantage by analyzing developments in international commodity markets likely to affect future market opportunities and competition; national macroeconomic and agricultural policies affecting competitiveness; and the underlying production and marketing cost structure and microeconomic environ-

ment in which production decisions occur. Factors likely to influence the decisions of policymakers and donors are also assessed.

The study found that the countries most successful in world markets are those that: (1) have market-sensitive agricultural policies which do not heavily tax the producer and do not significantly distort production patterns away from crops with a comparative advantage; (2) allow farmers to wield some political power; and (3) have invested considerably in improving productivity. By contrast, countries unsuccessful in world markets have experienced significant policy distortions. Several other findings are noted. (1) While price incentives contribute significantly to competitiveness, the timing and reliability of payment is equally important. (2) Though most African countries are not large enough producers of specific cash crops to influence world prices, many can increase their export earnings by improving their analysis of market opportunities and conditions. (3) Exchange rates are critically important for competitiveness, though not always in the same way. (4) Export crops and food crops do not necessarily compete with each other, and often are complementary in terms of farmers' strategies.

**045**

**PN-ABG-832**  
**MF \$1.08/PC \$5.46**

## **Reports to the United States Congress by the Agency for International Development—I. integrated pest management: A.I.D. policy and implementation, II. pesticide use and poisoning: a global view**

U.S. Agency for International Development. Bur. for Science and Technology. Ofc. of Agriculture  
Sep 1990, [37]p.: statistical tables, En

Worldwide pre-harvest agricultural crop losses due to pests are estimated at 36% of potential yield, and post-harvest losses are estimated at an additional 14%. This volume contains two interrelated reports to the U.S. Congress about pest management in developing countries. The first report discusses the rationale for supporting programs

aimed at decreasing crop losses due to agricultural, live-stock, and human health pests. It also describes A.I.D. policies and regulations governing pest management activities, outlines current A.I.D. programs addressing this area, and discusses some possible future programs. The second report is focused specifically on the problem of pesticide poisoning in developing countries. While accurate data are difficult to obtain, a review of the literature reveals that the number of pesticide poisonings in developing countries appears to be disproportionately higher than in the more developed countries. The report discusses possible reasons for the high incidence, and describes the efforts, both by A.I.D. and other organizations, to improve the situation. (Author abstract, modified)

**046**

**PN-ABG-985**

**MF \$2.16/PC \$17.68**

## **Bolivia agroindustrial marketing systems study**

Gulliver, Aidan; Jimenez, Miguel

Abt Associates, Inc.

University of Idaho. Postharvest Institute for Perishables  
Deloitte and Touche

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

U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Rural and Institutional  
Development (Sponsor)

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

Oct 1990, xiv, 103 p. + appendix: statistical tables, En  
9365447

Efforts to develop alternatives to coca production in Bolivia's Chapare and Valles Altos regions over the past 10 years have achieved only limited success. Although the high price commanded by coca leaf has been a major obstacle to the adoption of new crops, it has become increasingly clear that the lack of adequate marketing systems is also a key factor. This report provides a rapid assessment of the existing marketing system, with emphasis on agro-industrial production. A number of key oppor-

tunities and constraints to agro-industrial development are identified in relation to raw material availability and access, processing facilities and capabilities, packaging and storage, infrastructure and transport, and legal and fiscal aspects. The major finding is that the current marketing systems in both target areas are characterized by a lack of specialized marketing infrastructure and by poorly defined linkages between different participants. All participants (producers, transporters, wholesalers, processors, packagers, and shippers) lack confidence in each other and few are willing to invest in specialized infrastructure, fearing uncertain and difficult returns. There are two implications of this splintered and cynical system: (1) efforts to strengthen the marketing system must be preceded or at least accompanied by secure demand; and (2) appropriate markets do not merely generate revenues for market participants, but can provide a key lever for integrating Bolivia's agricultural marketing system as a whole, a change that in the long run could have a profound impact on the country's economy. Recommendations for short- and long-term actions are presented in conclusion.

**047**

**PN-ABH-030**

**MF \$2.16/PC \$15.21**

## **Towards an Africa Bureau agricultural marketing strategy and action plan**

Holtzman, John S.

Abt Associates, Inc.

University of Idaho. Postharvest Institute for Perishables  
Deloitte and Touche

U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Rural and Institutional  
Development (Sponsor)

U.S. Agency for International Development. Bur. for  
Africa. Ofc. of Technical Resources (Sponsor)

Jun 1990, xi, 101 p., En  
9365447

Guidelines are presented to assist A.I.D.'s Africa Bureau in developing a strategy and action plan in the broad area of agricultural marketing. The paper recommends that the Bureau adopt a food systems approach to agricultural marketing and focus efforts on improving the performance

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of specific commodity subsystems or subsectors. The food systems approach analyzes agricultural marketing as a set of interrelated functions, rather than a series of discrete functions or activities such as assembly, bulking, transport, storage, processing, and distribution. It also breaks down arbitrary distinctions between agricultural production, marketing, and policy. Additional sections of the report: (1) review lessons learned from African projects in the areas of infrastructural investment, technological change and adaptation, marketing policy reform, experiments with alternative institutional arrangements, and upgrading of human capital; (2) discuss ways in which African countries could be classified for programmatic purposes; and (3) propose a process by which A.I.D. can foster the development of competitive, efficient, and progressive agricultural marketing systems. Such a process would include diagnostic assessments, applied research, pilot innovations, and monitoring and evaluation of innovations and policy reform programs.

**048**

**PN-ABH-112**

**MF \$1.08/PC \$6.24**

## **Private sector agricultural organizations in Nicaragua: problems and opportunities**

Fledderjohn, David; Oberbeck, Charles; Roof, James  
Agricultural Cooperative Development International  
U.S. Agency for International Development. Bur. for  
Food for Peace and Voluntary Assistance. Ofc. of  
Private and Voluntary Cooperation (Sponsor)  
Nov 1990, 40 p. + attachments, En  
9380192

The performance of Nicaraguan agriculture has deteriorated over the last decade: cotton production has fallen from 8 million to 2 million quintals; the cattle herd has been reduced from 3 million to 1 million; and coffee and irrigated rice production have declined to 700,000 quintals each from respective peaks of 1.2 and 1.8 million. The present report assesses the potential of the country's private sector for reversing this stagnant performance. Stress is laid on the potential role of the commodity associations affiliated with the Agricultural Producers Union of Nica-

ragua (UPANIC)—especially the associations for coffee, rice, livestock, and dairy production—by reason of their cohesiveness, strong leadership, good representation, and

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*The performance of Nicaraguan agriculture has deteriorated over the last decade: cotton production has fallen from 8 million to 2 million quintals; the cattle herd has been reduced from 3 million to 1 million; and coffee and irrigated rice production have declined to 700,000 quintals each.*

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experience in providing self-sustaining services. Three traditional farm service cooperatives—*Esquipulas*, the Santa Ana Cooperative, and CORCO—are also evaluated. Areas of potential assistance coalesce with key sector constraints: (1) uncertainty regarding the new government's plan to transfer ownership of lands confiscated by the Sandinistas and privatize agricultural parastatals; (2) the private sector's lack of access to technology and credit; (3) a weak market structure and poor linkages between input suppliers and producers; (4) lack of trained technicians and managers; and (5) uncertainty regarding government stability.

**049**

**PN-ABH-164**

**MF \$1.08/PC \$7.15**

## **Harvest assessment of cereal production**

Tulane/Pragma Group  
U.S. Agency for International Development. Bur. for  
Africa. Ofc. of Technical Resources (Sponsor)  
Jan 1991, 51 p.: charts, maps, statistical tables, En

The 1990 main-season harvests in the Sahelian countries monitored by A.I.D.'s Famine Early Warning System (FEWS) were generally similar to or worse than the mediocre 1989 main-season harvests. This report assesses cereal production in each of the FEWS countries: Mauritania, Mali, Burkina Faso, Niger, Chad, Sudan, and Ethiopia. Two countries showed seemingly favorable national figures. Mali produced a national-level surplus and Ethiopia's

harvest was a new aggregate record. However, areas within these countries are still vulnerable to food crises or even at risk of famine. Problems were most severe in Sudan, where poor harvests and extreme food insecurities are now nationwide and unlikely to be held in check by even the most ambitious level of assistance. The multiple causes of Sudan's problems, i.e., drought, civil conflict, indifferent or hostile local authorities, and a deteriorating economic environment, are also found in other countries. One more poor harvest in northern and eastern Ethiopia, the Sahelian areas of Chad, Niger, Burkina, or Mali, or the Senegal River Valley in Mauritania may elevate these local problems to national disasters, as has occurred in Sudan. (Author abstract, modified)

050

PN-ABG-116

MF \$1.08/PC \$3.77

## Legume green manures: principles for management based on recent research

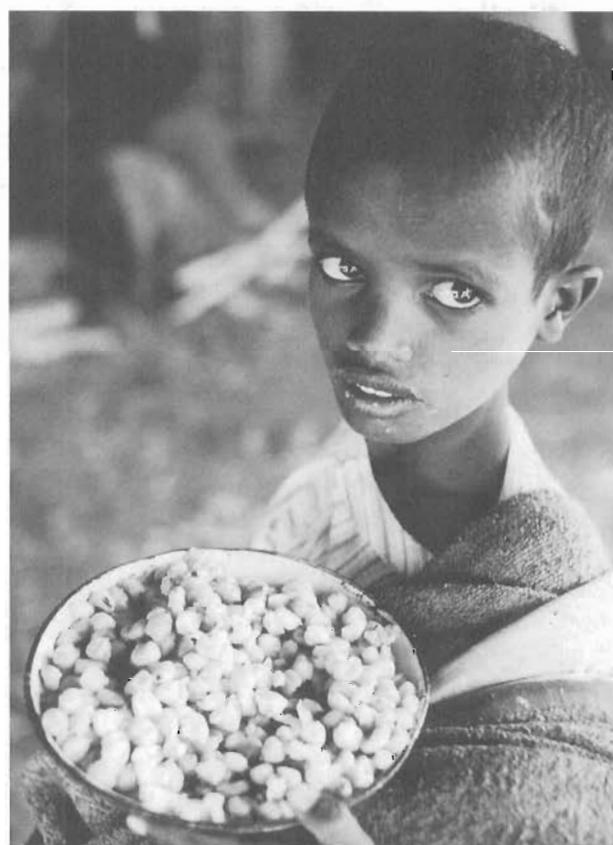
Lathwell, Douglas J.

North Carolina State University. Dept. of Soil Science  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Agriculture  
(Sponsor)

Jun 1990, 30 p.: ill., charts, statistical tables, En  
9311311

The high cost of concentrated fertilizer nitrogen in developing countries, as well as its damaging environmental impact, has prompted a search for alternative sources of nitrogen to manage soil fertility. Renewed interest has been given to legume green manures, which can fix large quantities of atmospheric nitrogen in plant tissues. When the legume plants decay, the nitrogen becomes available to succeeding nonlegume crops. This form of nitrogen offers several advantages. It is relatively inexpensive, once the basic soil fertility is adequate to support legume growth. When cultivated between other crops, legumes maintain ground cover, reducing erosion and providing weed control. Legume green manures improve physical soil conditions and promote mycorrhizae on the roots of succeeding crops, increasing soil phosphorus availability. They may also suppress plant pests such as nematodes. This report

summarizes several experiments on legume green manure conducted at the *Centro de Pesquisa Agropecuaria do Cerrado* at Planaltina, Brazil. The research focused on two important factors in the response of maize (*Zea mays* L.) to nitrogen from various legume green manures: (1) the rate of nitrogen mineralization and (2) the efficiency of nitrogen use by a succeeding nonlegume crop. Although the experiments were conducted in a tropical savannah, some of the principles discussed apply to other regions as well. Nitrogen cycling, sorption, and leaching are indicated as areas needing further research.



*Ethiopia's 1990 main season cereal harvest was a new aggregate record, although areas within the country are still vulnerable to food crises.*

# FOOD AND NUTRITION

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051

PN-ABG-059  
MF \$2.16/PC \$13.65

## Report: drought disaster mitigation workshop, April 30–May 2, 1990, Emmitsburg, Maryland

Mutch, Robert W., comp.; Penrod, Lynn, comp.  
U.S. Agency for International Development. Ofc. of  
U.S. Foreign Disaster Assistance  
(Drought Disaster Mitigation Workshop, Emmitsburg,  
MD, US, 30 Apr–2 May 1990)  
Jul 1990, 99 p.: charts, statistical tables, En

During the past 10 years, an estimated 103 droughts and related food shortages have killed more than 400,000 people worldwide. In response to these disasters, the U.S.

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*During the past 10 years, an estimated 103 droughts and related food shortages have killed more than 400,000 people worldwide.*

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government spent more than \$1.4 billion in emergency relief. There is a growing body of evidence that these high costs, both in human and financial terms, could be reduced by early drought and famine preparedness and mitigation measures. Countries as diverse as India, Botswana, Zimbabwe, Brazil, and Bangladesh have developed successful famine mitigation programs. This report summarizes papers and recommendations of a conference sponsored by the Office of Foreign Disaster Assistance (OFDA) on agricultural aspects of drought and famine mitigation. Papers cover the following topics: production-consumption linkages and household-level coping strategies, climatological issues, the OFDA's response to drought in Africa, socioeconomic aspects of private and public mechanisms for coping with drought and famine, agricultural techniques of drought mitigation (e.g., crop selection, indigenous knowledge, household gardens, and dryland farming), water conservation and harvesting in West Africa, issues relating to livestock, and food storage aspects.

052

PN-ABG-216  
MF \$1.08/PC \$4.81

## Suggestions for a nutritional strategy for the United States Agency for International Development mission to Honduras

Franklin, David L.; Parillon D., Cutberto  
Sigma One Corp.  
U.S. Agency for International Development. Bur. for  
Latin America and the Caribbean. Honduras  
(Sponsor)  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Program (Sponsor)  
Nov 1989, iii, 25 p. + attachment, En  
9361406

Malnutrition remains a widespread problem in Honduras, particularly in rural parts of the country, and requires specific policy-level attention from both private and public agencies. This report looks at the nutritional status of Honduras, discusses past A.I.D. nutrition assistance efforts, and suggests an A.I.D. strategy for reducing malnutrition in the country. The report finds that even if Honduras were to begin a period of rapid and sustained economic growth, more than 25% of the country's children would still be malnourished in the year 2000. In addition, A.I.D.'s current programs and their planned enhancements, while likely to cause some improvements, are insufficient. The report therefore recommends that A.I.D. help the Government of Honduras: (1) establish a system of clear and stable economic incentives that cause value to be assigned to the time and products of the poor so that their returns reflect the poor's real value to the country; (2) reorient the provision of public services (health, water, sanitation, roads, schools, technology transfer, and marketing structures) to assure adequate coverage for the producers and workers in the traditional agricultural sectors; (3) provide immediate relief for the acute nutritional problems of the western and southern regions of the country; and (4) promote national awareness of the need to solve Honduras' severe food and nutrition problems, and support the reorientation of national institutions toward a sustainable approach to these problems. It may also be necessary to provide nutrition-

oriented services to some segments of the urban population to obtain political support for overall policy reforms. The report emphasizes that Honduras' nutrition problem needs to be seen as problem of severe rural poverty and not as one that can be solved by an urban-based cheap food policy.

**053**

**PN-ABG-242**  
**MF \$2.16/PC \$18.20**

## **Effectiveness of maternal and child health (MCH) supplementary feeding programs: an analysis of performance in the 1980's and potential role in the 1990's**

Mora, Jose; King, Joyce, M.; Teller, Charles H.  
Logical Technical Services Corp. International  
Nutrition Unit

U.S. Agency for International Development. Bur. for  
Food for Peace and Voluntary Assistance. Ofc. of  
Program Policy and Management (Sponsor)  
Sep 1990, v, 130 p.: charts, En  
9310262

Title II food aid played an important role in supporting maternal/child health (MCH) feeding programs in the developing world during the 1980's. If this role is to continue, however, major changes will need to be made in program orientation, design, funding, and implementation, according to this report. The study, which assesses MCH feeding programs from 1976-1989 and examines their potential for the 1990's, found that programs which are properly designed and implemented can be effective in improving the nutritional status of the recipients. In addition, while the need for MCH supplementary feeding is increasing (particularly in sub-Saharan Africa), the number of programs and beneficiaries is on the decline. The report identifies the following as key elements of program success: (1) adequate initial assessment of the magnitude and causes of the nutrition problems; (2) locally appropriate project designs; (3) community participation (especially by women); (4) sustained supply of culturally appropriate food; (5) strong administrative capacity of the implementing agency; (6) complementary inputs, e.g., education and primary health care; (7) feasible, cost-

effective targeting of those in need; and (8) functioning logistics and monitoring/evaluation systems. Major program constraints are also listed: (1) inadequate needs assessment and design; (2) inadequate implementation and evaluation; (3) insufficient resources of the implementing organization; (4) the low priority accorded supplementary feeding by PVO's and governments; (5) funding gaps unmet by host governments or donors; and (6) cumbersome administrative requirements. Twelve specific recommendations are provided.

**054**

**PN-ABG-831**  
**MF \$1.08/PC \$4.55**

## **Targeted consumer food subsidies and the role of U.S. food aid programming in Africa: a workshop report**

Rubey, Lawrence M.; Staatz, John M.; Weber,  
Michael T.  
Michigan State University. Dept. of Agricultural  
Economics

U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Rural and Institu-  
tional Development (Sponsor)

U.S. Agency for International Development. Bur. for  
Food for Peace and Voluntary Assistance. Ofc. of  
Program Policy and Management (Sponsor)  
(Targeted Consumer Food Subsidy Schemes and the  
Role of U.S. Food Aid Programming in Africa, Wash-  
ington, DC, US, 21 Nov 1989)

Nov 1990, 35 p., En  
9311190

Undernutrition arising from food insecurity has increased significantly in Africa, and is estimated to affect over 25% of the population. This report presents the conclusions of a workshop to explore improved food assistance mechanisms. A major conclusion of the workshop is that untargeted food subsidies are fiscally unsustainable by most African nations and that administratively targeted subsidies pose significant data collection and implementation challenges. A more favorable approach is to subsidize less preferred and "self-targeting" staples (e.g., sorghum and millet) which are consumed primarily or exclusively by the

# FOOD AND NUTRITION

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poor. Self-targeting foods reach the poorest households without disrupting the supply of food to the rest of the population. However, certain conditions must exist for self-targeting to be effective: there must be significant differences in the dietary patterns of the rich and the poor, and the less preferred food must be politically viable, available for subsidy at central points in the marketing chain, and not be purchased as animal feed. Advertising and marketing schemes may be used to modify food preferences of both the wealthy and the poor in support of the self-targeting scheme. The report also notes the need for further research on the use of local currency generations from food aid to support food- or cash-for-work projects, seasonal price stabilization measures, and small enterprise development schemes. Abstracts of 10 workshop presentations are appended.

**055** **PN-ABG-867**  
MF \$1.08/PC \$8.71

## Global food assessment: situation and outlook report

Hjort, Kim; Kurtzig, Michael; et al.  
U.S. Dept. of Agriculture. Economic Research Service  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Agriculture  
(Sponsor)  
Nov 1990, 64 p. + attachment: charts, statistical  
tables, En

Cereal needs for many low-income countries in 1990/91 are substantial despite a favorable outlook for supplies. East Africa and South Asia will require the most assistance, followed by Latin America and Southern Africa. The situation reflects poor harvests in Ethiopia and the Sudan, good crops in most of Asia, and declining commercial cereal imports in most regions due to foreign exchange shortages. This report, the successor to the *World Food Needs and Availabilities* series, looks at the current status and short-term outlook (two years) for global food aid needs. The analysis contains estimates at the regional level for 55 developing countries (years 1990/91 and 1991/92) and individual country estimates for the major food aid recipients—Bangladesh, Egypt, Ethiopia, India, Jamaica,

Mozambique, Peru, the Philippines, and the Sudan. To maintain the per capita cereal consumption at the 1980–89 average for the 55 countries would take an estimated 16 million tons of food aid. However, to meet the U.N. minimum calorie standard would require 26 million tons. Both estimates are sharply higher than the 9.3 to 10.4 million tons of aid available for 1990/91 and the estimated 9.5 million tons provided in 1989/90. The report also provides three case studies on longer term needs in India, Kenya, and Morocco.

**056** **PN-ABH-162**  
MF \$1.08/PC \$7.54

## Background paper on nutrition issues in ANE region: constraints and opportunities

Sanghvi, Tina G.; Pyle, David  
John Snow, Inc.  
U.S. Agency for International Development. Bur. for  
Asia and Near East. Ofc. of Technical Resources  
(Sponsor)  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Nutrition (Sponsor)  
Jan 1990, 20 p. + 4 annexes: charts, En  
9310262

Despite rapid economic growth and increases in agricultural production and calories per capita in the Asia/Near East region over the last several decades, malnutrition levels remained constant and the absolute number of malnourished increased. Compared with Africa and Latin America, the Asia/Near East region is worse off in terms of: the percentage and total number of malnourished children under age 5, the percentage of acute malnutrition in children ages 1–3, growth failure peaks in children aged 12–24 months, and the prevalence of Vitamin A deficiencies and of anemia among pregnant women. Poverty is the overriding constraint to nutrition improvement in the Subcontinent and parts of Southeast Asia. Secondary problems are improper feeding and nutrition practices, which are widespread throughout the region. The report recommends that A.I.D. emphasize the following interventions: targeted nutrition education messages; product fortifica-

tion with vitamins and minerals (especially Vitamin A and iron); development of low- cost, labor-saving weaning foods utilizing local commodities and the private agribusiness sector; research on nutrition impact on workforce

productivity, low birth weight reduction, and adolescent female nutritional status; and monitoring and improvement of household food security through agricultural and small-scale enterprise development.



*A boy in a rural Indian village is a beneficiary of an Agency food aid program. Poverty is the overriding constraint to nutrition improvement in the Sub-continent and other parts of Southeast Asia.*

057

**PN-AAX-248**  
MF \$2.16/PC \$13.13

## **Sustainability of U.S. supported health, population, and nutrition projects in Guatemala: 1942–1987**

Bossert, Thomas; Godiksen, Lois; et al.  
U.S. Agency for International Development. Bur. for Program and Policy Coordination. Center for Development Information and Evaluation  
U.S. Agency for International Development. Bur. for Latin America and the Caribbean. Guatemala  
Sep 1990, xiv, 47 p. + 2 appendices, En  
A.I.D. evaluation occasional paper, no. 40

Since 1942, A.I.D. and its predecessor agencies have funded 19 major health-related projects in Guatemala in five areas: health services, water sanitation, malaria control, family planning, and nutrition. These projects have brought significant and in many cases sustained benefits to the country. This report identifies two kinds of factors affecting project sustainability—contextual factors, i.e., those beyond the control of project designers and managers, and project characteristics. In regard to contextual factors, national commitment to project goals and support from influential groups was a positive force on sustainability, whereas the inadequacies of the implementing institutions (in terms of fragmentation, conflicting goals, and poorly trained staff) had an adverse influence. Sociocultural differences were positive or negative depending on whether or not they were attended to. Other contextual factors, such as natural disasters, political environment, U.S.-Guatemalan relations, economic changes, the private sector, and donor coordination, seemed to have little impact on sustainability. Project characteristics important to sustainability included: visibly effective achievement of project goals, integration of the project into the structure of the implementing agency, qualified and stable leadership from both the implementing agency and A.I.D., ability to provide for progressive absorption of recurrent costs, provision of significant professional or paraprofessional training and technical assistance, and cooperation between A.I.D. and the Guatemalan Government in project design. Project characteristics which did not seem important for

sustainability include: foreign exchange demand, cost recovery, cost-effectiveness, appropriate technology, and community participation. Policy implications are presented in conclusion.

058

**PN-AAX-250**  
MF \$1.08/PC \$5.33

## **Health care in Nepal: an assessment of A.I.D.'s program**

Blue, Richard N.; Van Dusen, Roxann; et al.  
U.S. Agency for International Development. Bur. for Program and Policy Coordination. Center for Development Information and Evaluation  
Feb 1991, xi, [22]p. + 2 appendices: statistical tables, En  
A.I.D. evaluation special study, no. 70  
Related document: PN-ABG-063

The evolution of Nepal's health care system and the impact thereon of A.I.D. programs over the past 30 years are assessed. Major findings are as follows.

(1) Health status has improved, as reflected by increasing life expectancy, declining infant mortality, and substantial control and reduction of malaria. A.I.D. programs—especially malaria and diarrheal disease control, technical and managerial training of health workers, and (with UNICEF) the Expanded Program of Immunization—have contributed notably to these improvements. (2) The family planning program, which until recently focused overly on sterilization and did not offer a broad choice of methods, has not been a success; only 15% of Nepalese practice modern contraception. (3) Persistence of high female morbidity, maternal mortality, neonatal disorders, and high incidence of diarrhea, worms, respiratory infections, and skin diseases suggests a cluster of maternal/child health problems which do not respond well to either vertical campaigns or passive curative treatment. These problems may be associated with low levels of female education and poverty, including extremely poor hygiene and polluted water supply. (4) The system has been dominated by the Government of Nepal's (GON) effort to fulfill its promise to provide a reasonable level of health care to all citizens. While the gains from this approach are unde-

niable, many institutional weaknesses persist. Most importantly, the demand for health care outstrips the GON's ability—especially financial—to meet it. (5) The private sector's role in health care is poorly defined, despite widespread willingness to use private, fee-for-service sources. Efforts of nongovernmental organizations (NGO's) to implement health insurance or prepaid drug schemes, and NGO experience in general, are largely ignored by the GON. (6) GON efforts to decentralize health care decisionmaking have thus far consisted of little more than formal changes in the organizational chart. The recent establishment of a corps of women community health volunteers is a positive sign, though there is a danger that this corps will be incorporated into the system as a new "bottom rung" of the health bureaucracy. (7) The advent of a new, potentially democratic government gives Nepal a chance to reexamine its approach to health care and A.I.D. a unique opportunity to help chart a fresh approach. (Author abstract, modified)

059

**PN-ABF-517**  
MF \$3.24/PC \$32.63

### Determinants of health and mortality in Africa

Hill, Allan G., ed.  
Institute for Resource Development/Macro  
Systems, Inc.  
Population Council  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Population  
(Sponsor)  
(Demographic and Health Surveys Workshop, London,  
GB, 1 Sep-26 Oct 1988)  
Apr 1990, viii, 240 p.: charts, maps, statistical tables,  
En, Fr  
936302300

Proceedings are presented of an 8-week workshop held in London for the purpose of producing detailed studies based on data recently collected in the health and demographic surveys program organized by the Institute for Resource Development. Ten experts from six African countries—Burundi, Liberia, Mali, Morocco, Nigeria, and

Senegal—took part in the workshop. The studies, several of which required use of the University of London's large computer, covered the following topics: (1) environmental risk factors of childhood mortality in Liberia; (2) childhood and adult mortality levels and trends in Morocco; (3) recent trends in, and some determinants of, childhood mortality in Burundi; (4) vaccination in Burundi; (5) effects of breastfeeding on diarrheal morbidity, nutritional status, and childhood mortality in Mali; (6) patterns of maternity care in Ondo State, Nigeria; and (7) child morbidity in Senegal. Included in the workshop were seminars and lectures aimed at introducing participants to more advanced demographic and statistical techniques for use in their future research, such as demographic estimation methods and linear and logistic regression.

060

**PN-ABF-939**  
MF \$1.08/PC \$5.59

### Perceptions of childhood diseases and attitudes towards immunization among slum dwellers, Dhaka, Bangladesh

Blanchet, Therese  
John Snow, Inc.  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Health (Sponsor)  
U.S. Agency for International Development. Bur. for  
Asia and Near East. Bangladesh (Sponsor)  
Jun 1989, 36 p., En  
9365927

Although the Government of Bangladesh began providing immunization services in 1979, coverage remains very low, especially in slum areas, where children are most vulnerable to disease. This study describes the knowledge and attitudes of 80 mothers living in the Dhaka slums of Rayer Bazar and Hazaribagh regarding six immuno-preventable diseases—tetanus, measles, poliomyelitis, whooping cough, diphtheria, and tuberculosis—and the use of vaccinations to combat them. Of these women's 90 children, 56.6% had received no immunization, while 27.7% had been partially immunized, and only 14.4% had been fully immunized. The study shows that the symptoms of measles, tetanus, and tuberculosis are well-known, while

those for diphtheria, whooping cough, and polio are not. Even in the former cases, traditional remedies are often preferred to vaccination. Many mothers do not understand how a vaccine works inside the body, and fears provoked by this lack of knowledge, compounded by an intimidating health care bureaucracy, are major disincentives to immunization. Among those who did have their children immunized, the prestige associated with allopathy was a primary incentive. Educational efforts are severely constrained by the lack of radios and televisions and the high illiteracy rate among women (86%). Most mothers reported hearing about immunization services through clinics and female friends and relatives. Although decisions on immunization are usually the responsibility of the mother, fathers in more economically secure families tend to take a greater interest in health intervention. However, some of these men object to vaccinations, arguing that it is unnecessary, since they can afford medical care if the child becomes ill. Recommendations are presented for improved targeting of slum dwellers for immunization services.

**061** **PN-ABG-517**  
**MF \$1.08/PC \$10.79**

## **Impact and sustainability of USAID assisted health activities in Thailand, 1951–1989**

Hongvivatana, Thavitong; Johnson, Charles N.; et al.  
U.S. Agency for International Development. Bur. for Asia and Near East. Thailand  
U.S. Agency for International Development. Bur. for Asia and Near East  
Oct 1989, vii, 27 p. + 9 appendices: statistical tables, En 4930249

Between 1951 and 1989, A.I.D. provided over \$100 million to the Royal Thai Government for some 30 separate health projects. Activities were primarily in malaria eradication and control, population and family planning, rural water and sanitation, medical education and health training, primary health care, and nutrition. This evaluation concludes that, although there have been some failures at the project level, the impact of A.I.D. assistance has been outstanding at the policy and program levels. Highlights

include: a reduction in malaria from the primary cause of death in the 1950's to a minor cause; a significant drop in birth rates and a contraceptive prevalence rate equal to that of the industrialized nations; continued expansion of the Chiang Mai medical school; and rapid expansion of potable water and sanitary latrines. The sustainability of these programs is largely due to the Ministry of Public Health's highly motivated and technically competent staff and strong management and planning capacities. The Ministry has preferred an experimental, flexible approach with emphasis on community participation. The projects also benefited from the economic stability and recent prosperity of the country, which ensured budgetary resources and increased population demands for new health care interventions.

**062** **PN-ABG-518**  
**MF \$1.08/PC \$9.36**

## **Breastfeeding for child survival strategy**

U.S. Agency for International Development. Bur. for Science and Technology. Ofc. of Nutrition  
May 1990, iv, 67 p., En

A strategy for enhancing the breastfeeding component of A.I.D.'s child survival, health, population, and nutrition programs is presented. (For a review of past A.I.D. interventions, see PN-ABG-519.) The specific goals of the A.I.D. strategy are to increase the percentage of infants who are: breastfed within one hour of delivery, exclusively breastfed from birth through 4–6 months of age, fed appropriate complementary foods by the end of 6 months, and breastfed for one year or longer. The report makes explicit the following benefits of breastfeeding and its critical relationship to child survival: (1) breast milk is ideal food for infants; (2) breastfeeding saves lives; (3) breastfeeding saves money; (4) breastfeeding prevents diarrhea; (5) breastfeeding confers immunity; (6) breastfeeding protects mothers' health; and (7) breastfeeding is effective family planning. Successful approaches to breastfeeding promotion and support are identified as lactation management training for hospital-based and other health workers, communication and social mar-

keting, and mother-to-mother support groups. Effective methods also need to be developed to facilitate breastfeeding by working women and to reach women outside the formal health sector. There is great potential for incorporating such interventions into ongoing programs, such as those aimed at diarrheal disease control, immunization, nutritional improvement, child spacing, pre-natal care, health care financing, and food aid. A list of pertinent actions to be taken by A.I.D./W and field Missions concludes the report.

**063** **PN-ABG-519**  
MF \$1.08/PC \$4.94

### **Breastfeeding: a report on A.I.D. programs**

U.S. Agency for International Development. Bur. for Science and Technology. Ofc. of Nutrition  
1990, iv, 32 p.: ill., charts, En

Breastfeeding promotion has been included in many A.I.D. child survival programs, but not generally as a major focus. This is partly due to the erroneous assumption that, since breastfeeding is universal, mothers require little assistance in developing specific breastfeeding skills and practices. This report highlights some of the major breastfeeding activities supported by A.I.D. over the past decade. These activities show not only that breastfeeding is a key to child survival, but that proven and cost-effective interventions exist for its promotion and support. For example, the Improvement of Maternal and Infant Diet Project supported the San Diego-based Wellstart lactation management program, which trained key health care professionals and promoted reforms in hospital practices at a cost in pennies per pair benefitted. Other projects have explored such interventions as breastfeeding promotion through mass media and social marketing, mother-to-mother support groups, curriculum development, data collection, and information exchange. In addition, A.I.D.-assisted research has helped clarify the determinants of breastfeeding, its value in protecting against diarrhea and other infections, and its importance as a natural family planning technique. The final section of the report presents summarizes A.I.D.'s recent *Breastfeeding for Child Sur-*

*vival Strategy* (PN-ABG-518), aimed at strengthening breastfeeding promotion within child survival, health, population, and nutrition programs at both the central and field levels.

**064** **PN-ABG-747**  
MF \$1.08/PC \$12.48

### **Oral rehydration therapy: the behavioral issues**

Sukkary-Stolba, Soheir  
International Health and Development Associates  
U.S. Dept. of Health and Human Services. Public Health Service. Ofc. of International Health (Sponsor)  
U.S. Agency for International Development. Bur. for Science and Technology. Ofc. of Health (Sponsor)  
Jul 1990, xiv, 88 p., En

Oral rehydration therapy (ORT) provides a simple means to cut dramatically the more than 5 million infant and child deaths caused annually by diarrhea in the developing world. Teaching caretakers the proper use of ORT is often made difficult, however, by cultural, environmental and socioeconomic factors. This monograph, the first in a series on behavioral issues in child survival interventions, reviews the qualitative literature about the use of ORT in different cultures. Major conclusions are as follows. (1) ORT projects should take account of local beliefs and behaviors which relate to diarrhea and the acceptability of oral rehydration salts (ORS) to combat it. (2) ORT training and media messages should identify feeding practices and behaviors and the cultural principles underlying them. (3) Caretakers other than mothers should be identified and included in the target group of ORT projects. (4) Extensive and sustained education is necessary to teach mothers to use ORT effectively. Clear, careful, consistent instructions are essential. (5) The amount of rehydration ingredients in each ORS packet should conform to a common household container. (6) Support from the professional medical community—and often from traditional health practitioners—is vital to the success of ORT projects. (7) Community leaders and health workers and family members should supplement often harried clinic staff as ORS distributors. (8) To be effective, ORT information campaigns should

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employ several media—radio, TV, printed matter, face to face contact, etc. (9) Continued research on the reasons why mothers do not use ORT. (10) Sustainable ORT projects require a long-term commitment. Monograph Two in the series (PN-ABG-748) presents a comprehensive bibliography on behavioral factors related to ORT.

**065** **PN-ABG-749**  
MF \$2.16/PC \$13.78

## Immunization: the behavioral issues

Pillsbury, Barbara  
International Health and Development Associates  
U.S. Dept. of Health and Human Services. Public Health Service. Ofc. of International Health (Sponsor)  
U.S. Agency for International Development. Bur. for Science and Technology. Ofc. of Health (Sponsor)  
Jul 1990, xiv, 94 p., En

Of all the child survival interventions, immunization has generally had the greatest success to date. In fact, 60% of children worldwide are now fully vaccinated by their first birthday, up from 15–20% in the early 1980's. However, as health planners think about extending and sustaining the gains made thus far, attention needs to focus on understanding and influencing the behavior of community members whose children have not yet been fully immunized. Every year about 3.5 million children in developing countries die and many more are disabled from vaccine preventable diseases. Even when vaccination services are accessible and even free, many mothers and child caretakers do not respond. This monograph, the third in a series on behavioral issues of child survival interventions, presents a synthesis and analysis of program experience and research findings concerning behavioral issues of immunization. Major findings and recommendations concern: the importance of understanding behavioral factors; reasons children are not immunized; disease-specific beliefs and behavior; socioeconomic correlates of low immunization coverage; parental knowledge and understanding of immunization and their fears concerning it; low motivation for immunization; mothers' time costs and other constraints; location of services; drop outs; vaccination cards; community participation; traditional health practitioners;

traditional health beliefs; research methodologies and health education approaches; and counseling guidelines. (Author abstract, modified)

**066** **PN-ABG-750**  
MF \$2.16/PC \$14.30

## Breastfeeding, weaning and nutrition: the behavioral issues

Brownlee, Ann  
International Health and Development Associates  
U.S. Dept. of Health and Human Services. Public Health Service. Ofc. of International Health (Sponsor)  
U.S. Agency for International Development. Bur. for Science and Technology. Ofc. of Health (Sponsor)  
Jul 1990, xviii, 93 p., En

Besides its direct impact on infants' health, breastfeeding enhances other child survival interventions and could help save 1 million infant lives in developing countries every year. This monograph, the fourth in a series, examines the behavioral aspects of breastfeeding, weaning, and nutrition and their importance for project design and implementation. Major issues covered include: (1) beliefs, practices, and other important factors affecting feeding practices, nutrition, and child survival; (2) health providers and institutions and their effects on feeding practices; (3) infant and child nutrition interventions both at the community level and in health institutions; (4) the process of sustaining and expanding nutrition programs; and (5) qualitative research methods useful for examining behavioral aspects of infant and child feeding. Key conclusions and recommendations are as follows. (1) Planners should examine local beliefs and practices important for infant feeding, e.g., the prevalence of discarding colostrum, the lack of awareness of the health benefits of exclusive breastfeeding during the first 4–6 months of life, the dangers posed by breastmilk substitutes. They should also study other major factors such as the importance of social networks, the negative effects of urbanization, the extent to which women's work deters breastfeeding, income, etc. (2) Administrators should explore health workers' lack of knowledge of correct practices, as well as the prevalence of common health institution procedures known to be detri-

mental to proper feeding. (3) Project designers should consider what types of strategies might best improve infant and child feeding at both the community level (e.g., development of support groups, promotion of improved weaning foods) and the health institution level (e.g., training in lactation management, control of infant formula). (4) It is essential to consider and develop strategies for project sustainability early on, as well as to consider behavioral, organizational, and other political factors when attempting to expand small-scale projects. A companion report—Monograph Five, “Breastfeeding, Weaning, and Nutrition: Expanded Bibliography” (PN-ABG-751)—presents a more comprehensive bibliography on this subject.

067

PN-ABG-752

MF \$2.16/PC \$14.30

### Growth monitoring and promotion: the behavioral issues

Brownlee, Ann

International Health and Development Associates

U.S. Dept. of Health and Human Services. Public Health Service. Ofc. of International Health (Sponsor)

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

Jul 1990, xvi, 94 p., En

Despite its potential for reducing infant mortality, growth monitoring and promotion (GM/P) has been very difficult to implement due to the need for active involvement of mothers, health workers, and the community in its implementation. This monograph, the sixth in a series, examines key behavioral aspects of GM/P. Topics include: (1) local beliefs and practices concerning infant and child growth; (2) health workers' beliefs and practices affecting GM/P project development; (3) strategies for promoting effective individual and community participation; (4) design of GM/P technology that takes account of behavioral findings; (5) behavioral aspects of promotional and follow-up activities; (6) expanding and sustaining effective GM/P projects; and (7) methods for studying behavior related to GM/P.

Major conclusions and recommendations are as follows. (1) Planners should explore traditional measures for measuring growth, as well as practices with particularly negative or positive effects on growth. They should also be sensitive to local attitudes towards weighing children and, more generally, should adopt innovative and culturally appropriate techniques for including the community in the entire GM/P process. (2) The use of protocols providing health workers with specific guidelines should be considered. (3) Growth charts should be simple and clear, use culturally-appropriate colors and language, and have specific technical features which facilitate accurate plotting and interpretation. (4) Key attributes of a scale suitable for field use include maintenance, durability, portability, acceptability, accuracy, potential for user error, simplicity, and cost. (5) Planners should focus maximum effort on identifying and strengthening the weakest link in the GM/P process. (6) All GM/P projects should have an educational component which provides mothers with practical advice for activity between GM/P sessions. (7) Supplementary feeding, when deemed necessary, should focus on high-risk children aged 0–3 and be kept separate from GM/P activities.

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\*PN-ABH-023

MF \$3.24/PC \$27.82

### Management assessment of primary health care services in the Peru Ministry of Health

PRISM Group

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

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

1990, 2 v.: charts, statistical tables, En  
9365920\*Also available from: Prism Group, 5430 F Lynx Lane,  
Suite 306, Columbia, MD 21044 USA

While public health efforts in the 1980's focused on expanding the delivery of child survival services, improvement in the quality of service delivery is now the primary

goal. This evaluation of child survival programs in Peru utilizes a systems assessment model, developed under the PRICOR project, which aims at yielding a detailed, quality assurance profile of service delivery while providing immediate feedback to health workers and managers participating in the assessment. The study involved 54 health centers throughout the country. Five major findings are presented. (1) Health workers perform technical tasks far better than they perform promotional/educational efforts. (2) Problems resulting from a lack of awareness on the part of health workers and local deficiencies in the organization of services appear to be more important determinants of performance than lack of motivation, supplies, or program strategies. (3) Health workers have a high level of job satisfaction despite current budget problems. (4) In communities closest to health centers, basic coverage is below desirable levels in all programs, but significantly better for child survival than for maternal health and family planning. (5) Mothers are generally satisfied with the technical aspects of services, but less so with the manner in which they are treated and the educational services provided. It was found that mothers' basic knowledge in virtually all key program areas is poor. The assessment also demonstrated the value of the systems assessment model to attain the goals for which it was developed.

069

PN-ABG-658

MF \$1.08/PC \$9.75

## **Health benefits from improvements in water supply and sanitation: survey and analysis of the literature on selected diseases**

Esrey, Steven A.; Potash, James B.; et al.  
Camp Dresser and McKee, Inc.  
U.S. Agency for International Development, Bur. for  
Science and Technology, Ofc. of Health (Sponsor)  
Jul 1990, ix, 73 p.: maps, En  
9365973

Significant efforts have been made in the past decade to improve water supply and sanitation in the developing world. The most notable achievement was in the area of rural water supply, where coverage increased from 32% in

1980 to 42% in 1985. This report reviews 144 English-language studies on the impact of improved water supply and sanitation facilities on six diseases: diarrheal diseases,

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*Significant efforts have been made in the past decade to improve water supply and sanitation in the developing world—especially in the area of rural water supply, where coverage increased from 32% in 1980 to 42% in 1985.*

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ascariasis, dracunculiasis (guinea worm), hookworm, schistosomiasis, and trachoma. The review indicated that the impact has been significant. Median reductions in incidence were 78% for guinea worm, 77% for schistosomiasis, 29% for ascariasis, 27% for trachoma, and 26% for diarrhea. All studies of hookworm were flawed with one exception, which found a 4% reduction in incidence. The substantial impact of water and sanitation on child survival is also evident, with the 6 better studies indicating a 55% median reduction in overall child mortality, though none of these studies, unfortunately, specifically addressed diarrheal disease. The report also points out that water and sanitation often has an even greater impact on the reduction of disease severity than it does on disease incidence. Several factors important for maximizing the impact of water and sanitation projects are noted in conclusion: close proximity of water supply to homes, hygiene education to promote more water use for personal and domestic purposes, culturally appropriate sanitation facilities, the use of facilities during critical seasonal transmission periods (i.e., for guinea worm), the relative health importance of safe excreta disposal and proper water use over drinking water quality, and installing sanitation facilities in conjunction with water facilities when fecal-related diseases are prevalent.

070

PN-ABG-760  
MF \$1.08/PC \$8.32

## Collaborative decade planning: a case study of sectoral planning in Swaziland

Yohalem, David; Hoadley, William  
Camp Dresser and McKee, Inc.

U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Health (Sponsor)  
U.S. Agency for International Development. Bur. for  
Africa. Swaziland (Sponsor)

Jul 1990, x, 57 p., En  
9365973

One of the major contributions of the U.N. International Drinking Water Supply and Sanitation Decade of the 1980's has been the development of national action plans for the water supply and sanitation sectors of participating nations. This report describes the sectoral planning activities carried out in Swaziland with the assistance of the Water and Sanitation for Health Project (WASH). Collaborative planning involving WASH and an inter-ministerial body (composed of seven ministries and two departments) resulted in the development of background papers, a national sector policy and two-year action plan together with a review of both, and, finally, a national action plan. Several lessons emerged from the WASH experience. (1) Donors should support a self-reliant national planning process and capability aimed at institutionalizing a planning base and at planning in response to nationally identified needs. (2) Institutional development should not be sacrificed to more visible construction of facilities. (3) Programs or activities should not be forced but respond to felt needs. (4) Donor strategies should be coordinated to ensure consistency of purpose, complementarity of approach, and the avoidance of conflicts. (5) Donors should remain flexible and responsive to changing and emerging sectoral needs and priorities. (6) Donors should be willing to commit to long-term support of sectoral development to permit continuity and establishment of development initiatives.



*A woman lifts water out of a concrete reinforced well in a small village in Burkina Faso.*

# POPULATION

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071

**PN-ABG-214**  
**MF \$1.08/PC \$4.42**

## Identifying poverty groups in Honduras: some preliminary estimates and scenarios

Franklin, Ralph  
Sigma One Corp.  
World Bank (Sponsor)  
U.S. Agency for International Development. Bur. for Latin America and the Caribbean. Honduras (Sponsor)  
May 1990, 31 p.: statistical tables, En 5250325

Structural adjustment policies such as those being implemented in Honduras have tended to have disproportionately negative effects on the health and nutrition of poor people, particularly children. This report provides information on the Honduran poor for use in designing pro

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*Slightly over half of Hondurans face extreme poverty—74.4% in rural areas, 15.5% in Tegucigalpa.*

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grams to alleviate the negative effects of structural adjustment. It measures and locates major geographic pockets of poverty and provides rough estimations of the number of people facing extreme poverty. Poverty is measured in terms of the ability to purchase a nutritionally adequate food basket. The report then examines the impact on poverty estimates of three different scenarios: stricter poverty criteria (to permit identification of those facing very extreme poverty), a 25% increase in agricultural wages, and an updated consumer price index. Major findings are that slightly over half of Hondurans face extreme poverty—74.4% in rural areas, 15.5% in Tegucigalpa, 9.3% in San Pedro Sula, and 16.6% in other urban areas. The report concludes that resources need to be focused on rural development activities, with some highly targeted urban assistance programs. An unbiased agricultural market information system would allow rural households to respond to emerging opportunities and promote increased

domestic food supplies for both rural and urban areas. Since the agricultural sector is the single largest employer, food aid should be used cautiously to avoid disincentives for local farmers.

072

**PN-ABG-092**  
**MF \$1.08/PC \$1.43**

## Long-term follow up of laparoscopic sterilizations by electrocoagulation, the hulka clip and the tubal ring

Koetsawang, Suporn; Gates, D.S.; et al.  
Family Health International  
U.S. Agency for International Development. Bur. for Science and Technology. Ofc. of Population (Sponsor)  
*Contraception*, v. 41, no. 1, Jan 1990, p. 9–18: statistical tables, En 9363041

Demand for sterilization among Thai women has been high for many years. By 1975, 10% of all married women of reproductive age had been sterilized, while by 1981, some 23% had undergone the procedure. This report presents the findings of a follow-up study on 499 women sterilized between 1973 and 1976 at Siriraj Hospital in Bangkok. The women underwent three types of laparoscopic sterilization: electrocoagulation (209 women), the Hulka clip (184), and the tubal ring (106). Four post-sterilization pregnancies were reported—one intrauterine and two ectopic pregnancies in the electrocoagulation group and one ectopic pregnancy in the Hulka clip group. Results indicate that pregnancy can occur as late as seven years after sterilization. Peritubal abscess or inflammatory adnexal mass occurred in five clip patients and in two ring patients and seventeen women reported undergoing hysterectomies. However, it is not clear whether any of these complications were directly related to the sterilization procedure. The vast majority (98%) of women were satisfied with their sterilization procedure.

073

**PN-ABG-094**  
**MF \$1.08/PC \$1.56**

## **Barrier contraceptives and the interaction between HIV and other sexually transmitted diseases**

Lamprey, Peter  
Family Health International  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Population  
(Sponsor)  
*Heterosexual transmission of AIDS*, ch. 22, 1990, p.  
255-265, En  
9363041

Two issues pertinent to the heterosexual transmission of AIDS are discussed in this article: the interaction between AIDS and other sexually transmitted diseases (STD's), and the ability of barrier contraceptives to prevent these diseases. In regard to the first, research shows that some STD's, especially genital ulcer disease caused by chancroid, syphilis, and herpes, increase the risk of acquiring HIV infection. More generally, STD prevention is pertinent to AIDS prevention due to the fact that: (1) individuals who practice high-risk sexual behavior seem to be at much greater risk of acquiring a range of STD's, including HIV infection; and (2) the presence of STD's appears to increase the risk of HIV infection. In regard to the second issue, research shows that barrier contraceptives are not the primary solution to the AIDS epidemic. Condoms are safe, relatively cheap, and devoid of side effects, but have high failure rates (mostly due to user failure) and may not protect against all genital infections. Spermicides, when used with other barrier methods, appear to offer some protection against STD's and may indirectly reduce the risk of HIV. However, further research on both of these methods is required. The most effective preventive measures, according to the report, are reduction or elimination of sexual activity with persons who exhibit high-risk behavior, reduction in the number of sexual partners, and mutual monogamy. Although barrier contraceptives may only reduce and not eliminate the risk of STD's and HIV

infection, they should be recommended for persons at risk. Recommendations for further research are presented in conclusion.

074

**PN-ABG-290**  
**MF \$1.08/PC \$3.77**

## **Enterprise in Mexico: a strategic approach to private sector family planning**

Skibiak, John P.  
John Snow, Inc.  
Birch and Davis Associates, Inc.  
Coverdale Organization, Inc.  
John Short and Associates, Inc.  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Population  
(Sponsor)  
U.S. Agency for International Development. Bur. for  
Latin America and the Caribbean. Mexico (Sponsor)  
Aug 1990, ii, 18 p. + appendix, En  
9363034

In 1986, A.I.D. initiated a program to help Mexican private sector organizations develop and deliver high-quality family planning (FP) services. The program has two major components. A workplace component has collaborated with private sector employers and nongovernmental FP organizations to expand company-based FP programs. Results have included dramatic declines in work force pregnancy rates, substantial savings to the companies, and a gradual but growing demand on the part of employers for FP services. Currently, the employers cover all recurrent costs of the workplace-based programs. The program's market-based component has led to two distinct developments. The first was the creation of a self-sustaining business, PROTA, to procure and distribute IUD's to private doctors and clinics for resale to poor and middle income people nationwide. To date, PROTA has distributed almost 34,318 IUD's and established a regular clientele of over 580 private doctors. The second achievement was the establishment of private sector community clinics in economically marginal neighborhoods. These clinics have attracted more than 56,000 new FP acceptors

# POPULATION

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to date and, most importantly, has successfully reached its targeted low-income population. A key factor in the success of the workplace component was the full use of the social, kinship, and other informal networks binding Mexico's industrial and business leaders. The market-based component demonstrated that, although government subsidies limit the profitability of FP services, commercial viability can be achieved by offering FP as part of an integrated health care package.

**075** **PN-ABG-764**  
MF \$2.16/PC \$13.00

## How Thailand's family planning program reached replacement level fertility: lessons learned

Bennett, Anthony; Frisen, Carl; et al.  
Dual & Associates, Inc.  
International Science and Technology Institute, Inc.  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Population  
(Sponsor)  
9 Nov 1990, v, 93 p.: charts, En  
9363024

Fertility in Thailand has declined dramatically in the past 25 years, from over 6 children per family to just above 2. Using a new framework developed by A.I.D.'s Office of Population, this report separates the evolution of the Thai experience into five stages according to the level of contraceptive prevalence at each period: the emergent stage (pre-1963); the launch stage (1963-69); the growth stage (1970-75); the consolidation stage (1976-84); and the mature stage (1985-). Program factors pivotal at each level in increasing the number of contraceptive users and thus in bringing the program to the next level are identified, along with related lessons learned.

The analysis suggests that Thailand was predisposed to rapid family planning adoption for two reasons: (1) an unusually high demand for contraceptives and (2) extraordinarily strong government commitment to the program. These reasons may be connected to the advanced status of Thai women, the acceptance of economic arguments for

controlling the national fertility rate, effective use of international assistance, and imaginative and committed family planning leaders. Specific program factors which contributed to success include: (1) early use of experimental pilot projects; (2) willingness to enlist the participation of all types of groups; (3) the use of paramedics to provide pills, IUD's, and injectables; and (4) continuing efforts to reach difficult groups. The report also identifies three favorable external influences: (1) large amount of external donor support, (2) good demographic data, and (3) a strong transportation system, which contributes to the mobility of women and of program support.

**076** **PN-ABG-765**  
MF \$1.08/PC \$11.83

## Mexico city policy: implementation study

Blane, John; Friedman, Matthew  
Dual & Associates, Inc.  
International Science and Technology Institute, Inc.  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Population  
(Sponsor)  
21 Nov 1990, vii, 30 p. + 6 annexes, En  
9363024

In 1984, the U.S. government announced a new policy which prohibits U.S.-funded family planning programs from carrying out or promoting abortion. This report evaluates the level of compliance with and impact of this policy, known as the "Mexico City Policy" because it was presented there at the U.N. International Conference on Population. A total of 49 subprojects were reviewed in 6 countries—10 in Pakistan, 8 in Bangladesh, 12 in Brazil, 8 in Kenya, 4 in Egypt, and 7 in Turkey. All of the subprojects reviewed are in complete compliance with the standard clauses of the Mexico City Policy. Most local subgrantees have specific compliance procedures and conduct some form of self-monitoring in addition to external monitoring by the U.S. cooperating agency. In most cases, the Policy has not had a significant effect, especially in countries where abortion is already both illegal and contrary to cultural and religious traditions. However, several

subproject managers (in Bangladesh and Turkey as well as a few in Brazil, Pakistan, and Kenya), have reacted by restricting activities which are clearly permitted under the

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*Several subproject managers have reacted by restricting activities which are clearly permitted under the Policy (e.g., referrals to abortion facilities, documentation of abortion histories, etc.). This overcautiousness stems from a fear that any association with abortion-related activities, however indirect or inadvertent, could place a program's funding in jeopardy.*

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Policy (e.g., referrals to abortion facilities, documentation of abortion histories, data collection on abortion trends and other research activities, etc.). This overcautiousness stems from a fear, based in part on the confusing legal language of A.I.D. procedures, that any association with abortion-related activities, however indirect or inadvertent, could place a program's funding in jeopardy. Recommendations are presented to reduce overcautiousness by ensuring that the Policy is more clearly understood by project personnel.

077

PN-ABG-773

MF \$1.08/PC \$8.71

### **List of free materials in family planning/maternal and child health, 1990, fourth edition**

Maglaque, Penelope, comp.; Murphy, Catherine, comp.  
University of North Carolina at Chapel Hill. School of  
Medicine. Program for International Training in  
Health

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

4th ed.

1990, 75 p., En

9363031

Family planning/maternal and child health (FP/MCH) professionals require reference and training materials to perform their jobs effectively and to keep up-to-date in their fields of expertise. This manual provides a listing of FP/MCH materials available free of charge—either to all requestors or only to persons working in developing countries—from health agencies around the world. The materials are grouped in seven sections: (1) family planning; (2) maternal and child health; (3) primary health care; (4) AIDS; (5) population; (6) development (economic, environmental, social, health, development education, and communications aspects); and (7) information sources (databases, publications catalogs, periodicals lists, and other resource guides). Each entry includes information on any applicable restrictions (e.g., number of copies), as well as the name and address of the organization from which the item may be obtained. A sample request letter is appended.

# HUMAN SETTLEMENTS

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078

PN-ABG-243  
MF \$1.08/PC \$11.05

## Regularizing the informal land development process

Serageldin, Mona  
Harvard University. Graduate School of Design  
U.S. Agency for International Development. Bur. for  
Asia and Private Enterprise. Ofc. of Housing and  
Urban Programs (Sponsor)  
Oct 1990, iv, 77 p.: maps, En

Informal land development has emerged as a major issue in the developing world, as soaring land prices, urban sprawl, and problems of land encroachment have increased significantly over the past 15 years. This background study is designed to further the process of regularizing land development in a variety of legal and cultural contexts. Containing five sections, the study is based on a review of existing literature and an assessment of regularization policies and experiences. The first part provides an overview of regularization policy, identifying elements common to the regularization process and indicating regional and country differences. The remaining sections offer regional reports on Asia, Latin America, the Middle East and North Africa, and sub-Saharan Africa. Each section examines the legal background and evolution of land development regulations and the widening gap between formal requirements and informal development processes, especially with respect to growth patterns on the urban fringe. Case studies are included for each region. (Author abstract, modified)

079

PN-ABG-449  
MF \$2.16/PC \$12.87

## Urbanization and the environment in developing countries: background papers from the roundtable conference on urbanization and the environment in developing countries held in Washington, D.C. on November 21, 1989

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

U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Forestry, Environ-  
ment and Natural Resources

(Roundtable Conference on Urbanization and the Envi-  
ronment in Developing Countries, Washington, DC,  
US, 21 Nov 1989)

Jul 1990, viii, 95 p., En  
940100895

Third World urbanization has outstripped the capacity of authorities to manage development and respond to the need for infrastructure, services, and land, according to this report. The resulting environmental degradation and depletion of natural resources now threatens to undermine the productivity of cities and hamper economic growth. The report, a compilation of three papers delivered at an A.I.D.-hosted conference on linkages between urbanization and the environment, identifies the most immediate environmental problems facing urban areas as a lack of potable water, inadequate or improper sewage and solid waste disposal, and insufficient land use planning. Five principles to guide urban environmental management are proposed: (1) enhance economic growth through such measures as settlement policy reform, strengthening agricultural markets, etc.; (2) develop strong institutions by, e.g., clarifying jurisdictions and decentralizing authority; (3) create better guidance systems for decisionmaking; (4) direct urban growth with carefully instituted land development policies and improved urban services; and (5) encourage private initiative by offering credit, enacting regu-

latory reforms, and releasing public lands to the private sector. A final section of the report analyzes the implications of urban environmental problems for donor agencies.

**080** **PN-ABG-450**  
**MF \$1.08/PC \$8.45**

## **Informal sector in housing and urban development: a review and a road map**

Hermanson, Judith A.; Owens, Richard T.  
Cooperative Housing Foundation  
U.S. Agency for International Development. Bur. for  
Private Enterprise. Ofc. of Housing and Urban Programs (Sponsor)  
Mar 1990, 36 p. + 3 annexes: charts, En  
940100895

In the developing world, there are a large number of communities in which housing, ranging in type from shanties to high-cost homes, has been developed without formal sanction. This report examines several issues related to informal sector housing delivery, including finance, land and land tenure, infrastructure, production and construction materials, environmental impact, institutional capacity and regulation, and gender impact. The report then provides descriptive analyses of the housing delivery process in both the formal and informal sectors and explores policy and program strategies for dealing with the informal sector, with emphasis on factors of importance to A.I.D.'s Office of Housing and Urban Development. These include: linkages between the informal sector and other economic policies; conflicts between national informal sector policies and local practices; local government revenue generation and institutional capacity; the political force of the informal sector; land tenure; spatial development and physical environment; and the role of nontraditional shelter delivery organizations. A final section presents guidelines for informal sector research and program activities by A.I.D.'s Regional Housing and Urban Development Offices. The report differs from previous studies in two important respects: it provides an overview of the linkages between the formal and informal sectors with respect to shelter and urban development; and it makes a case for an integrated approach to informal sector issues.

**081**

**PN-ABG-072**  
**MF \$1.08/PC \$7.15**

## **After-action report of the Hurricane Hugo OFDA disaster relief team**

Davis, Cindy; Farnsworth, Kate  
U.S. Agency for International Development. Ofc. of  
U.S. Foreign Disaster Assistance  
19 Feb 1990, 54 p., En

On September 16 and 17, 1989, Hurricane Hugo ripped through the eastern Caribbean, causing massive destruction of housing, public buildings, and infrastructure, and leaving thousands homeless. This report describes the damage caused by the storm on the islands of Montserrat, St. Kitts, Nevis, and Antigua and summarizes the relief and rehabilitation efforts by the United States, multi-donor teams, and the island governments. Immediate post-disaster needs consisted of medical supplies, temporary roofing and shelter, food, and clean water. Donors concentrated early efforts on the provision, transport, storage, delivery, and distribution of these goods. However, at the beginning of the relief effort, donors also began to plan for the rehabilitation stage, which involved the restoration of electricity, airports, and housing. Total cost of the U.S. relief and rehabilitation effort was \$4.7 million. Detailed recommendations are presented to improve future disaster operations.

# HUMAN SETTLEMENTS

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082

PN-ABG-447  
MF \$1.08/PC \$4.03

## Introduction to the Israel shelter sector: a desktop study

Nanita-Kennett, Milagros; Miller, John  
Abt Associates, Inc.

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

Aug 1990, v, 20 p.: statistical tables, En  
9401008

As the result of relaxed Soviet policies, the number of  
Soviet Jews emigrating to Israel now runs about 40,000–  
60,000 annually, up from 20,000 in 1988, 8,000 in 1987

and 900 in 1986. To deal with this flood of immigrants, the Government of Israel must promote the construction of at least 50,000–55,000 housing units annually during the next several years. This report emphasizes the main characteristics and constraints of the housing sector and the most recent actions undertaken by the Government of Israel in the housing sector. Major constraints to housing production are identified as the following: (1) extremely slow and tedious processes for obtaining government subsidies; (2) strong monopolies in the construction industry; (3) long construction periods; (4) limited land availability; (5) lack of an organized construction lending system; (6) resistance to the use of foreign developers or construction firms to reduce housing shortages; (7) almost total lack of prefabricated or modularized housing; and (8) severe construction labor shortages. Among the efforts the Government of Israel has made to alleviate these problems have been privatizing the housing construction industry and undertaking an industrialized construction program.

# ENVIRONMENT AND NATURAL RESOURCES

083

PN-AAX-247  
MF \$1.08/PC \$3.38

## Natural resource management: A.I.D.'s experience in Nepal

Chew, Siew Tuan

U.S. Agency for International Development. Bur. for Program and Policy Coordination. Center for Development Information and Evaluation  
Oct 1990, vii, 14 p. + attachments, En  
A.I.D. evaluation occasional paper, no. 41

Since 1980, A.I.D. has invested about \$77 million in projects to improve Nepal's natural resource management, particularly in the hill regions where most poor farmers live. This paper reviews the two largest projects—Rapti Area Development and Resource Conservation and Utilization (RCU); it also describes how USAID/Nepal is supporting multidonor forestry projects. The review identifies several important lessons. (1) USAID/Nepal has been more effective in influencing policymaking and institutional changes when supporting multidonor projects than when acting alone. (2) The Rapti and RCU projects underscore the difficulty of implementing large projects that involve technologies far beyond the host country's capabilities. More importantly, they demonstrate that support for resource conservation need not always be technically sophisticated, but sometimes can—and should—begin by integrating research and extension activities into existing agricultural and rural development projects. Such activities should concentrate on developing simple, low-cost technologies that can be undertaken and sustained by farmers individually or on a communal basis to improve livestock management, replant forests, and curb soil erosion on hill slopes and in catchment areas. To gain farmer support, such activities should increase livestock and tree production without compromising food crop production. (3) Efforts to decentralize forestry management should not stop at the local government but should involve the affected communities themselves.

084

PN-ABF-993  
MF \$3.24/PC \$34.71

## Guatemala natural resource policy inventory: USAID/ROCAP. RENARM project

Bradley, Theresa; Basterrechea, Manuel; et al.  
Abt Associates, Inc.

U.S. Agency for International Development. Bur. for Latin America and the Caribbean. Regional Ofc. for Central American Programs (Sponsor)

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

Apr 1990, 3 v., En  
5960150; 9364084

Improved natural resource management in Guatemala must begin with sound public policy. This study, presented in three volumes, examines the macroeconomic, sector, and international policies that affect the management of natural resources in the country. Volume I provides a non-technical summary of the results and conclusions of the report. Detailed analyses are presented in Volume II. Individual chapters: inventory Guatemala's natural resources; analyze the political, economic, and social factors of Guatemala's policy environment; describe the role of Guatemalan institutions in natural resource policymaking; summarize the impact on natural resources of major macroeconomic policies; and outline priority policy areas requiring further analysis. Volume III presents policy inventory tables in four categories—sustainable agriculture, production from natural forests, watershed management, and wildland management—and provides a brief description of 90 domestic (public and private) and international institutions and universities active in Guatemala's natural resource policy environment. The main conclusion is that the country's poverty, population pressure, and skewed resource distribution (political and economic) are the fundamental causes of natural resource problems in Guatemala. Environmental policies have helped alleviate certain of these problems, but many are ill-conceived, unenforced, or constrained by contradictory policies and conflicting political or economic pressures.

# ENVIRONMENT AND NATURAL RESOURCES

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085

**\*PN-ABG-523**  
MF \$4.32/PC \$50.96

## World resources, 1990–91

World Resources Institute  
U.N. Environment Programme  
U.N. Development Programme  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Forestry, Environ-  
ment and Natural Resources (Sponsor)  
1990, xiv, 383 p.: charts, maps, statistical tables, En  
Published by: Oxford University Press  
9361406  
*\*Also available from: World Resources Institute, 1709  
New York Ave., NW, Washington, DC 20006 USA*

Wise management of natural resources and protection of the environment are essential to achieve sustainable economic development, alleviate poverty, improve the human condition, and preserve the biological systems on which all life depends. This report, a collaborative effort of the World Resources Institute, the U.N. Environment Programme, and the U.N. Development Programme, presents extensive and up-to-date information on natural resource use and environmental issues around the world. Part I provides an overview of the world environment, while Part II focuses on two specific issues: global warming and Latin American environmental problems, including deforestation and urban pollution. The section on global warming includes a index which tracks each country's responsibility for greenhouse gas emissions. Part III reports on basic conditions and trends, major problems and efforts to resolve them, and recent developments in each of the major resource categories, including population and health, human settlements, food and agriculture, forests and rangelands, wildlife and habitat, energy, freshwater, oceans and coasts, atmosphere, global systems and cycles, and policies and institutions. Within these broad categories, special focus sections are provided on malaria, the informal sector, food security in sub-Saharan Africa, tropical deforestation, greenhouse warming and biodiversity, automobile energy use, global cli-

mate and freshwater, Antarctica, and automobile pollution. Supporting data, as well as the core data tables from the World Resources Database, are found in Part IV.

086

**PN-ABG-833**  
MF \$2.16/PC \$20.80

## Greenhouse gas emissions and the developing countries: strategic options and the USAID response—a report to Congress

Jhirad, David; Padmanabhan, S.; et al.  
U.S. Agency for International Development  
Jul 1990, v.p.: charts, statistical tables, En

“Greenhouse gases” are gases released by human activities which trap within the atmosphere heat that would normally escape into space. The buildup of such gases—notably, carbon dioxide, methane, nitrous oxides, halons, and chlorofluorocarbons—may contribute notably to a potentially disastrous situation of global warming. This report, prepared for the U.S. Congress, analyses current greenhouse gas emissions for developed and developing countries, postulates future levels of emissions under different economic growth scenarios, and identifies countries that potentially could become major greenhouse gas emitters; the latter include Brazil, India, Indonesia, Mexico, Pakistan, Philippines, Poland, and Zaire. The report also describes strategies for controlling greenhouse gas emissions while maintaining vigorous economic growth. These options involve energy technology (to reduce both the use of fossil fuels and the emissions thereof), forest management, and agricultural management. The final sections summarize ongoing A.I.D. initiatives that address global warming and outline new A.I.D. initiatives to reduce greenhouse gas emissions. These plans include programs for collaborative energy technology development and commercialization, transfer of energy efficient and clean energy technology, expanded forestry policy research, training and institution strengthening focused on tropical deforestation and degradation, and international collaborative programs for monitoring greenhouse emissions and soil organic carbon stocks.

# ENVIRONMENT AND NATURAL RESOURCES

087

PN-ABH-045  
MF \$2.16/PC \$23.27

## Poland: an energy and environmental overview

Szpunar, C.B.; Bhatti, N.; et al.  
Argonne National Laboratory  
U.S. Dept. of Energy  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Energy (Sponsor)  
U.S. Agency for International Development. Bur. for  
Europe and Near East. Poland (Sponsor)  
Oct 1990, xi, 176 p.: maps, statistical tables, En  
9365724

As Poland takes unprecedented steps to become a democratic, market-oriented society, it continues to face an environmental catastrophe evidenced in an increasing volume and variety of human illnesses and extensive damage to cultural resources and infrastructure. This *Polska sytuacja* (Polish situation) stems largely from the high energy intensity of the country's industrial production, and includes a steady deterioration in air quality, contamination of ground and surface waters, and excessive levels of heavy metals in the country's soil. This report presents an overview of the environment situation in Poland, focusing particularly on air quality. Section 2 (chapters 3–8) details Poland's energy picture, including discussions on resources, production, trade, consumption, electricity generation, and sectoral end use. Section 3 (chs. 9–20), the heart of the report, describes Poland's air pollution status, focusing on trends in sodium dioxide, nitrogen oxide, and carbon dioxide wastes. Section 4 (chs. 21–28) outlays strategies for combatting the environmental problems discussed. The report also notes western research and development activities already under way in Poland and highlights related U.S. legislation. Includes an appendix providing in-depth data on Poland's public power stations.

088

PN-ABH-124  
MF \$2.16/PC \$14.56

## India: public/private partnerships in land development: final report

Baker, Lee; Sims, David  
Planning and Development Collaborative International, Inc.  
U.S. Agency for International Development. Bur. for  
Asia and Private Enterprise. India (Sponsor)  
U.S. Agency for International Development. Bur. for  
Asia and Private Enterprise. Regional Housing and  
Urban Development Ofc. (Sponsor)  
Jan 1991, vi, 111 p., En  
3980249; 9401008

Although recent draft policies of the Government of India advocate an increasing role for private developers in the delivery of serviced land, the private sector's proper role in housing delivery remains hotly debated, especially at the State level. In an effort to bring clarity to the issue, this report presents case studies of seven public/private partnerships for the development of serviced land in India. The partnerships were evaluated in terms of timeliness, the allocation of input costs, private resource mobilization, targeting of low-income groups, replicability, and appropriateness. Results of the study indicate four common ingredients for success: (1) reliance on the private developer's expertise in negotiating land development projects; (2) sufficient financing from a number of sources, both private and public; (3) political support for the project; and (4) utilization of the cooperative sector's legal and organizational framework to facilitate financing and delivery. The report also cites four constraints or limitations faced by the partnerships: (1) lack of sustained commitment from state governments; (2) the limited resources of local authorities; (3) bias against the participation of medium and small developers; and (4) overly sophisticated financial arrangements. The final section describes opportunities for private/public partnerships, including cooperatives, non-governmental organizations, and town planning schemes.

# ENVIRONMENT AND NATURAL RESOURCES

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089

PN-ABH-173  
MF \$1.08/PC \$6.11

## **Working paper: towards a strategy and action plan for helping developing countries to manage urban and industrial pollution**

U.S. Agency for International Development  
30 Mar 1990, iii, 42 p., En

The environmental crisis in Eastern Europe, where unchecked urban and industrial pollution increasingly threaten human health and the integrity of ecological systems,

highlights the importance of preventing similar conditions in other growing urban and industrial centers. This report lays the foundation for an A.I.D. strategy and action plan by suggesting priority areas for pollution management and A.I.D. responses. Priority areas are identified as: (1) water quality; (2) industrial planning, management, and operation; (3) safe pesticide management and disposal; and (4) air quality. It is recommended that A.I.D. focus its response on the following interventions: (1) development of effective policies and institutions to promote sound pollution management, (2) private sector development, (3) public education to motivate social change and political action, and (4) modification of A.I.D. operations to strengthen coordination with other donors, improve the effectiveness of pollution activities, and establish a pollution management unit.



*Fossil fuel-burning power plants like this one in India are a major source of greenhouse gases.*

**090****PN-ABG-512**  
MF \$1.08/PC \$12.35**Policy initiatives for electric utility load management in A.I.D.-assisted countries**

RCG/Hagler, Bailly, Inc.

U.S. Agency for International Development. Bur. for Science and Technology. Ofc. of Energy (Sponsor) Aug 1990, v.p.: charts, statistical tables, En 9365728

While developing nations have traditionally responded to increased electricity needs by building new power plants, this strategy has proved expensive, consuming over one-fourth of development budgets and an even greater share of foreign borrowings. Load management, a strategy to reduce customer demand for electricity during peak generating periods, offers developing countries an alternative to constructing new generating capacity. While not yet widely adopted in the Third World, load management offers much promise for alleviating power shortages, improving system reliability, promoting efficient resource utilization, and reducing investment requirements in the power sector. Load management also provides environmental benefits by reducing the consumption of fossil fuels, the major contributor to global warming. This report examines the rationale for load management in the electricity sector and summarizes positive experience with these techniques in the U.S. electricity industry. Stress is laid on three types of load management: (1) peak clipping, which is used during peak periods to reduce capacity requirements, operating costs, and dependence on critical fuels; (2) valley filling, which is used to build off-peak loads; and (3) load shifting, which is used to shift the load from the peak to the off-peak periods in the interest of system efficiency. The report also recommends a strategy for achieving energy efficiency via load management and recommends a method for identifying priority countries for load management assistance.

**091****PN-ABH-064**  
MF \$1.08/PC \$9.49**Ministry of Energy and Mineral Resources, the Hashemite Kingdom of Jordan: industrial energy efficiency program**

RCG/Hagler, Bailly, Inc.

Jordan. Ministry of Energy and Mineral Resources (Sponsor)

U.S. Agency for International Development. Bur. for Science and Technology. Ofc. of Energy (Sponsor)

U.S. Agency for International Development. Bur. for Europe and Near East. Jordan (Sponsor)

Jan 1991, viii, [61]p., En

9365728

Findings are presented of a December 1989–July 1990 project to assess the potential for improving the energy efficiency of small and medium industries in Jordan. The project revealed a great potential for energy conservation in Jordan's small and medium industrial sector. Energy audits carried out under the project indicated that energy consumption could be reduced 5%–25% at little or no cost to the industrial facilities. Additionally, a study of the potential and technical options for demand-side load management indicated that the 130 small and medium industrial enterprises under electric utility tariffs could reduce peak load by 22 MW, primarily through peak shifting (changing operating hours to avoid utility peak periods). This represents about 5% of the maximum peak demand experienced by the interconnected distribution company network. Additional uniform demand savings could be achieved with more efficient electrical equipment. Additional uniform demand savings (at all times) could be achieved through the use of more efficient electrical equipment. Taking into account the avoided costs of imported oil and new generation, transmission, and distribution systems, the strategies proposed by the project could save Jordan some \$100 million. Given the fact that the Government of Jordan actively encourages industrial development, including energy conservation, the main barrier to increased industrial efficiency seems to be the lack of awareness of the benefits of energy conservation among

# ENERGY

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industrial plant managers, and the limited access to and knowledge of energy-efficient equipment. Overcoming this barrier will require a major outreach, information, and training activity targeting both system users (industrial plant personnel) and system suppliers (consulting/engineering firms, contractors, and equipment vendors).

**092**

**PN-ABH-174**

**MF \$1.08/PC \$7.02**

**Analysis of health aspects, food acceptability and economics benefits of the solar box cooker in Sierra Leone—  
October 1, 1988—May 31, 1990: final report**

Carpenter, Barbara W.; Davis, Leroy; et al.  
Southern University and A and M College  
U.S. Agency for International Development. Bur. for  
Science and Technology. Ofc. of Research and Uni-  
versity Relations (Sponsor)  
30 Sep 1990, 51 p., En  
9365053

Results are presented of a project in Sierra Leone to evaluate the effectiveness of the solar box cooker (SBC) as an alternative to fuelwood for cooking foods and pasteur-

izing water. Tests performed on numerous locally-produced foods (onions, pepper, smoked fish, groundnut paste, sweet potato leaves, groundnut soup, and palm oil soup) indicate that the SBC can effectively destroy the usual fungi associated with food stuffs. Taste tests demonstrated high preference for SBC-cooked foods over foods cooked with fuelwood. The project also demonstrated that the SBC can be used to disinfect small quantities (2–3 liters) of water for drinking purposes. There is considerable enthusiasm for the SBC in Sierra Leone. It appears that the adoption rate will be fastest in the urban areas, primarily because of the persistent increase in fuelwood prices, and also that the SBC will be most attractive to families in which both parents work. There is a need to extend the project for at least another year to permit research on the use of local, less expensive materials in constructing the SBC.

093

**PN-AAX-234**  
MF \$1.08/PC \$9.62

## Assessment of the impact of A.I.D.'s participant training programs in Nepal

Kumar, Krishna; Nacht, Michael  
U.S. Agency for International Development. Bur. for Program and Policy Coordination. Center for Development Information and Evaluation  
Mar 1990, xv, 57 p.: charts, statistical tables, En  
A.I.D. evaluation special study, no. 68

Since 1951, the U.S. Government has provided long-term training in the United States, India, and other countries to 1,719 Nepalese nationals. This report evaluates the training programs on the basis of case studies of particular institutions and hundreds of interviews with participants and their coworkers. A major finding is that the programs have introduced large numbers of highly trained people into Nepalese society, who, in turn, have created a multiplier effect by strengthening or creating new institutions. Most of the trainees have moved to middle and senior levels of government agencies, with a few rising to positions such as cabinet minister, permanent secretary, and head of educational and research institutions. Many have been effective in diffusing new attitudes towards the work ethic, the merit system, and the need for continuous training into their respective institutions. It is apparent that Nepal's economic development would have been far less successful without the support of these programs. The contribution of third country training deserves special mention: given Nepal's severe shortage of trained personnel, many major development initiatives in agriculture, health education, rural development, and family planning would not have been implemented without it. On the negative side, trainees have not reflected the Nepalese population as a whole. Rather, they are drawn primarily from the socioeconomic elite and from the Katmandu Valley and other high-population areas. Women have been decidedly underrepresented, and in fact, the percentage of women participants actually declined from 14% in the 1955-1964 period to 4% from 1975-1984.

094

**PN-ABH-105**  
MF \$2.16/PC \$14.56

## Summary assessment of the education sector in Senegal

Kinsey, David; Moulton, Jeanne; et al.  
Florida State University. Learning Systems Institute  
U.S. Agency for International Development. Bur. for Africa. Senegal (Sponsor)  
U.S. Agency for International Development. Bur. for Science and Technology. Ofc. of Education (Sponsor)  
28 Sep 1990, iii, [104]p.: statistical tables, En  
9365823

This assessment of Senegal's education sector covers the structures and programs of all significant formal and nonformal education (NFE) activities, the costs and financing of education, the relationship between education and employment, education as an investment, and activities of other donors in the education sector. The report also analyzes the most serious problems affecting the educational system. (1) Formal primary education is seen as increasingly irrelevant, since it is theoretical rather than practical and prepares students for a baccalaureate degree rather than for productive work in their communities. The system is also beset by a lack of human and material resources. However, three conditions seem favorable to turning the tide in primary education: the country's economic crisis, the search for alternatives to formal schools, and a trend toward concerted donor efforts in education. (2) NFE is receiving increasing interest as a means of meeting basic educational and development needs, though it too is constrained by conceptual and implementation problems. Its future success will largely depend on the existence of charismatic and dedicated leaders and on the courage to risk replicating successful small-scale programs on a larger scale. (3) Low levels of schooling and literacy for women and girls inhibit the effectiveness of development efforts on a wide front. Government, donor, and private organization experience indicates numerous ways of improving female education, but these have not been developed into a systematic strategy. A final section summarizes strategy options for USAID/Senegal.

# TECHNOLOGY, INDUSTRY, & COMMUNICATION

095

**PN-ABH-130**  
**MF \$1.08/PC \$10.27**

## **Technological capabilities and organizational performance in developing countries**

Wad, Atul  
SRI International  
U.S. Agency for International Development. Bur. for  
Program and Policy Coordination (Sponsor)  
Dec 1990, i, 76 p., En  
9300091

The impact of technological capability on the competitiveness of Third World firms in today's global economy is examined. After an introductory analysis of the differences in business environment and approach to technology between Third World and First World firms, the technological capability of the former is discussed under two headings. The first is "technological assets" or the resources that influence a firm's ability to be a successful player in the global technological and business environment. These assets may be either "hard" (e.g., patents, research and development, and equipment) or "soft" (marketing and distribution, efficient management, and human resources). It is argued that "assets" is a more useful concept for understanding firm-level performance in the Third World than the more conventional focus on technological innovation. The extent to which these assets are used is in part determined by the second component of technological capability—"technology process effectiveness"—which includes the internal organizational dynamics whereby a firm receives, processes, and responds to market, technology, and policy signals. Here the report probes the policy, technological, and market environment within which Third World firms operate and develops a simple model for analyzing their efficiency on the "techno-economic" paradigm. Policy and business implications are discussed in conclusion. Among the key findings are that success is conditioned by country, sector, and firm-specific factors; that conventional, western approaches to management are inadequate in the Third World; and that there is a need for fresh empirical studies of the relationship between the technological assets and the technological

processes of Third World firms. It is recommended that new institutions be developed to help Third World firms better utilize their technological assets.

096

**PN-ABH-133**  
**MF \$1.08/PC \$3.25**

## **Emerging organizational arrangements for applying technology to development**

Lalkaka, Rustam  
SRI International  
U.S. Agency for International Development. Bur. for  
Program and Policy Coordination (Sponsor)  
Dec 1990, 26 p., En  
9300091

Many of the developing country institutions established over the past 50 years to develop and apply technology to economic growth are not performing well and need major restructuring. This paper reviews the challenges currently facing these institutions and describes some emerging and possibly helpful organizational arrangements. Initial sections detail: (1) common obstacles to technology development (e.g., lack of political commitment to the application of science to basic needs, misdirected training, lack of domestic financial resources, weak technical infrastructure, the inequity of the global power structure); (2) the stages of technology development within a country, beginning with traditional technology and ending with a highly sophisticated technological system; and (3) the lessons of the last decade regarding the need to integrate technology with economic development, to recognize the importance of trained personnel (scientists, technicians, and technology managers), to commit more financial resources to technology development and the infrastructure it requires, and to abandon such fruitless dichotomies as appropriate technology versus "hi-tech", domestically developed vs. imported technology, etc. Detailed next are several emerging organizational arrangements which may help developing country institutions meet the challenges of the 1990's. These include, inter alia, incentives for and commercialization of research, foundations which promote research grants, technology parks/incubators, technology sourcing

# TECHNOLOGY, INDUSTRY, & COMMUNICATION

and brokerage mechanisms, mobilization of expatriate nationals, technology assessment and forecasting, and total quality management. The report concludes that the accelerated pace of global technological change calls for a re-ordering of donor and recipient roles, with much greater responsibility assigned to national agencies in the design and execution of international cooperation projects.

**097**

**PN-ABH-134**  
MF \$1.08/PC \$5.85

## Intellectual property rights for appropriate invention

Evenson, Robert E.  
SRI International  
U.S. Agency for International Development. Bur. for  
Program and Policy Coordination (Sponsor)  
Feb 1991, 43 p.: statistical tables, En  
9300091

Intellectual property rights (IPR) have been a source of conflict between North and South countries for two decades. Many developing countries have argued that payments of royalties and license fees to foreign holders of patents and copyrights is unfair and that the holders of these rights have no moral or natural rights to protection in developing countries. Industrialized countries, on the other hand, have attempted to force developing countries to enforce stronger control over what they call "piracy" of intellectual property. This paper, taking the perspective of developing countries and particularly the newly industrialized countries in Asia, reviews various studies on the subject of IPR, beginning with a summary of IPR institutions and usage patterns. The paper then examines empirical evidence on the level and patterns of worldwide investment in research and development and estimates the social and private rates of return on research investments. The paper concludes that there is probably widespread underinvestment in research and development and related activities in developing countries. While the newly industrialized countries are all rapidly expanding such investments, the poorer countries are lagging behind due to a lack of incentives and effective institutions.

**098**

**PN-ABH-135**  
MF \$1.08/PC \$8.32

## Techno-economic paradigm, inter-firm linkages and new manufacturing technologies: the implications for contract manufacturing relationships for developing countries

Lavengood, Timothy; Wad, Atul  
SRI International  
U.S. Agency for International Development. Bur. for  
Program and Policy Coordination (Sponsor)  
Dec 1990, 62 p., En  
Economics of technology. Working paper, no. 7  
9300091

Contract manufacturing—in which developing country firms contract to supply components or services to industrialized country firms—is a common way for developing country firms to exploit the advantages of their low costs and enter otherwise difficult markets. The dynamics of contract manufacturing are changing, however, due to the growing replacement of traditional mass production assembly lines by flexible manufacturing systems which use advances in microelectronics to establish a series of semi-autonomous work-stations, each of which can make a variety of parts at low or medium volume. This paper probes the implications of flexible manufacturing systems and other changes in global manufacturing and productivity on developing country firms' competitiveness and contract manufacturing relationships with their First World clients. Section II argues that the principles and processes of mass production are yielding in many industries to a new production paradigm that demands a redefinition of efficiency and productivity and suggests new strategies for firm-level industrial development. The ensuing sections: briefly compare the traditional mass production strategies with emerging technologies, management practices, and inter-firm relationships; develop a framework for analyzing various types of inter-firm relationships; and discuss the implications of these variants for enhancing the competitiveness of developing country contract manufacturers. Policy and firm-level implications are presented in conclusion.

# TECHNOLOGY, INDUSTRY, & COMMUNICATION

099

PN-ABH-136  
MF \$1.08/PC \$3.77

## Technology gateway organization: a mechanism for the promotion of technological development and industrial competitiveness for developing countries

Wad, Atul  
SRI International  
U.S. Agency for International Development, Bur. for  
Program and Policy Coordination (Sponsor)  
Dec 1990, 27 p., En  
9300091

A large gap exists between the technological needs of developing country firms and the institutional and infrastructural context in which they operate. Most support institutions tend to be bureaucratic, nonmarket-driven, and unresponsive to industry, since they are normally subsidized by the state. Similarly, the protectionist policies pursued by many countries have insulated local firms from the competitive pressures that generate technological innovation. This paper proposes the establishment of a new organizational mechanism, called a "technology gateway," to provide effective technology development and related services to local firms. Gateway mechanisms would consist of one or several organizations able to provide various services, including: (1) technology sourcing and intelligence, (2) technology adaptation and development, (3) technology management services, (4) productivity enhancement and quality control, (5) market intelligence and access, (6) technology information services, and (7) policy-level activities. Such organizations could include governmental organizations, private local firms specializing in engineering or management consultancy, parastatals and private voluntary organizations, and foreign private organizations. To successfully serve as a gateway mechanism, the organization should possess a proven track record and reputation, technological competence, a private sector and demand-driven approach, a global orientation, and a flexible and responsive organizational structure. Implications for A.I.D. support in the establishment of technology gateways are discussed briefly in conclusion.

100

PN-ABH-139  
MF \$1.08/PC \$4.55

## Environmental technologies for developing countries

Evans, Nicholas R.S.  
SRI International  
U.S. Agency for International Development, Bur. for  
Program and Policy Coordination (Sponsor)  
Feb 1991, 32 p., En  
9300091

Rapid economic growth is often accompanied by acute environmental problems, as the pace of industrialization and urbanization outstrips the capacity for adopting sound environmental technologies. In many developing countries, inefficient energy use and inappropriate methods of disposing industrial and consumer wastes have caused damage in the form of smog and acid rain, polluted rivers and streams, and disruption of local ecosystems. This report identifies and assesses the relative costs of some available environmental technologies. These include technologies for: (1) pollution detection (remote sensing, biological sensors, and other sensors); (2) waste removal and treatment techniques (water and gas treatment); (3) waste disposal (discharge into waters and air, dumping at sea, burial in the ground, incineration, and bioremediation); (4) waste storage (deepwell injection, storage tanks, solidification, and encapsulation); (5) waste recycling and materials reclamation; and (6) alternative materials and processes (materials substitutions, process modification, and use of alternative energy sources). The costs of these environmental technologies, it is noted in conclusion, is to be assessed in terms of both the current costs of damage and clean-up and the future benefits and costs of each individual solution to individual countries. It is recommended that A.I.D. sponsor research and information dissemination activities in this area.

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