

**An ARTS Publication**  
Office of Analysis, Research, and Technical Support  
Bureau for Africa

# **Towards a Sustainable Future for Africa**

*Improved Natural Resources Management under the  
Development Fund for Africa, 1987 to 1993*

**Technical Paper No. 5**  
**April 1993**

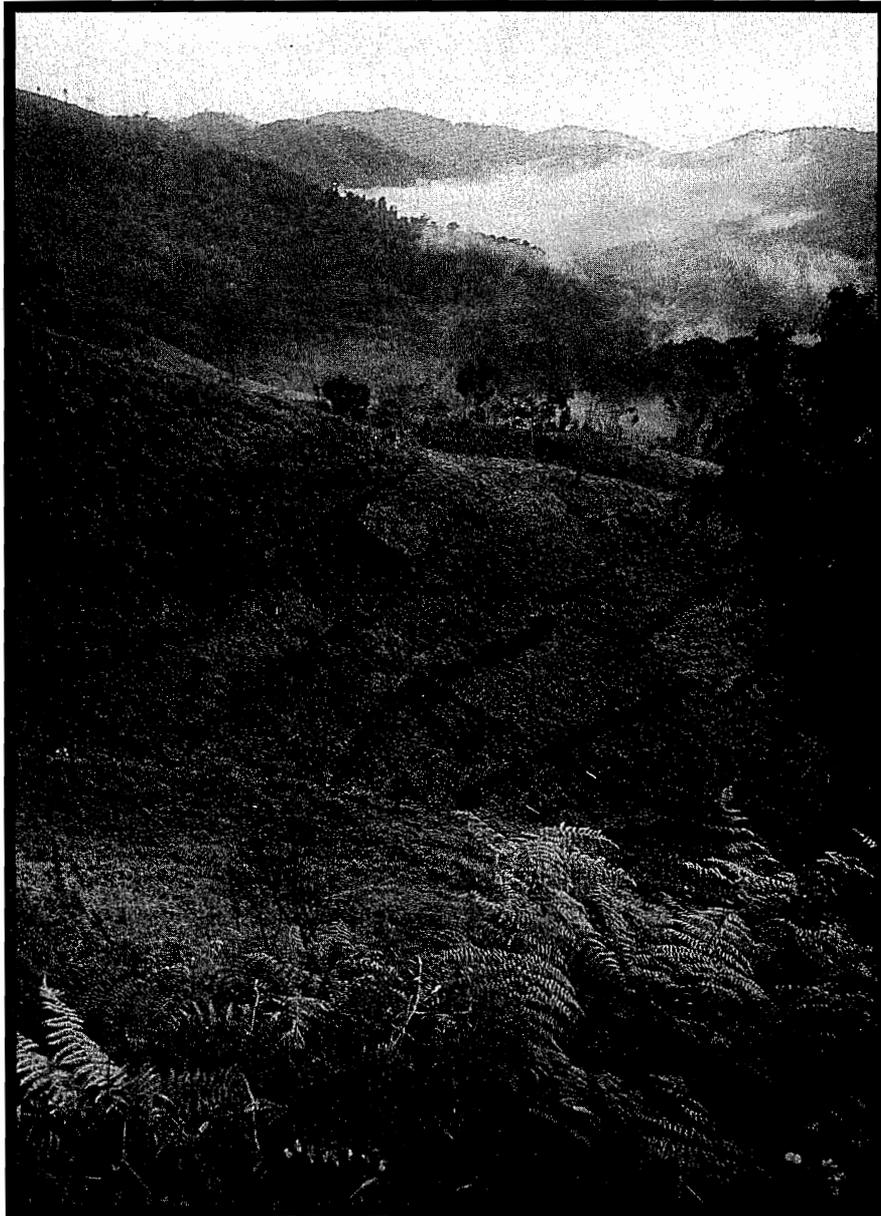


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April 1993



Bureau for Africa  
U.S. Agency for International Development  
Washington, D.C.

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*“Raja Tsy Misy Ala, Tsy Hisy Ny Rano, Tsy Hisy Ny Vary”*

*(“Without forests, there will be no water; without water, there will be no rice.”)*

— Malagasy saying quoted by the Minister of Agriculture at the opening ceremony of the Beza Mahafaly Special Reserve, October 1985.

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*Cover photo: By sponsoring projects that integrate conservation and development needs in such places as Uganda's Bwindi National Park, the U.S. Agency for International Development is helping to advance sub-Saharan Africa's economic development while also ensuring the long-term viability of the continent's natural resources. (Photo by Tim Resch)*

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# Foreword

How well has the Africa Bureau of the U.S. Agency for International Development (USAID)—both its Missions and its offices in USAID/Washington—performed under the Development Fund for Africa (DFA) in the natural resources management sector? If progress has been achieved, does this improve the prospects for a more prosperous future for Africa? This report attempts to answer these questions through a twofold approach:

- by showing that progress has been achieved toward attaining the DFA goal during the last five years, and
- by showing that, because of the above progress, the prospects for achieving sustainable and widespread economic development based on natural resources management is substantially greater today than it was five years ago.

This narrative chronicles progress by the Africa Bureau made under the DFA and the Plan for Supporting Natural Resources Management since 1987. It starts with a background of where the Africa Bureau was when the DFA was established. The report both monitors changes in the way that the Bureau operates and follows how changes have influenced the policies of a number of African Governments. The report also examines how these policy changes have affected the way that rural producers manage their natural resources base and how changes in resources use have improved the users' welfare and prosperity.

The report uses case examples to link progress by rural producers with changes in the Africa Bureau under the DFA. People-level impacts, such

as increases in income and productivity, are the ultimate measure of success, but the time required to achieve widespread impacts is substantially greater than the five-year time frame of this report.

This report presents examples of progress achieved through USAID programs in natural resources management, funded under the DFA. Changes have occurred at many levels. Rural producers have obtained higher yields and increased incomes through the adoption of better natural resources management practices; programs funded by USAID are noticeably more effective and hold more promise for promoting long-term, sustainable change than those of a decade ago.

This report has been prepared by the Food, Agriculture, and Resources Analysis Division of the Africa Bureau Office of Analysis, Research, and Technical Support (AFR/ARTS/FARA). The principal authors were Gary Cohen, Natural Resources Management (NRM) Unit Leader; Mike McGahuey, Sustainable Agriculture Advisor; Tony Pryor, NRM Policy Advisor; and Tim Resch, Tropical Forestry and Biodiversity Advisor. Editing was provided by Bradley Rymph, AMEX International, Inc. Special credit also goes to USAID Agriculture and Natural Resources Officers in Africa and to collaborating institutions, who are responsible for much of the material in this report as well as for the successful implementation of the programs described.

Ben Stoner  
Division Chief  
AFR/ARTS/FARA

# Glossary of Acronyms and Abbreviations

AFR/ARTS/ FARA	Bureau for Africa / Office of Analysis, Research, and Technical Support / Division of Food, Agriculture, and Resources Analysis
APE	Action Program for the Environment (Uganda)
API	Assessment of Program Impacts
CLUSA	Cooperative League of the USA
COBRA	Conservation of Biodiverse Resource Areas (Kenya)
CP	Conditions Precedent
DFA	Development Fund for Africa
DHV	Development of the Haute Valley Project (Mali)
FY	fiscal year
ICDP	integrated conservation and development project
IDA	International Development Association
IIED	International Institute for Environment and Development
KEPEM	Knowledge and Effective Policies for Environmental Management (Madagascar)
LTC	Land Tenure Center (University of Wisconsin)
MDS	Multi-Donor Secretariat
NEAP	National Environmental Action Plan
NGO	nongovernmental organization
NRM	natural resources management
ONE	National Office of the Environment (Madagascar)
PCG	Policy Consultative Group
PLI	people-level impacts
PNRM	Plan for Supporting Natural Resources Management in Sub-Saharan Africa
PVO	private voluntary organization
RFE	Regional Facility for the Environment
SADCC	Southern Africa Development Coordinating Committee
SAVEM	Sustainable Approaches for Viable Environmental Management (Madagascar)
TFAP	Tropical Forestry Action Plan
USAID	U.S. Agency for International Development
USAID/W	USAID / Washington office
WRI	World Resources Institute

# Executive Summary

There are two stories to tell about the rural economy in much of sub-Saharan Africa. On the one hand, there is the composite, macro-level view of a continent on a headlong negative slide. Per capita production is decreasing, and natural resources degradation is accelerating. On the other hand, there are the thousands of cases where farmers, herders, and woodcutters are increasing their productivity, reducing their risks, and beginning to reverse natural resources degradation.

The question is whether Africa's future is necessarily preordained to follow the pattern of the negative trend, or does the more promising story represent a plausible future for Africa? Are the more promising cases dependent on special endowments of soil, capital, or education and therefore limited to a restricted portion of the population? Or have they occurred because of enabling conditions that could be established on a broad scale?

For the last five years, the U.S. Agency for International Development (USAID) has been implementing the Development Fund for Africa (DFA). The DFA has given USAID significant flexibility and initiative to promote long-term sustainable economic growth in Africa. This paper summarizes USAID's Africa Bureau experience over these last five years. In particular, the report focuses on what has been accomplished to stimulate growth that makes optimum use of the continent's resources in a manner that will ensure prosperity for future generations of Africans.

This report outlines the threats facing the continent—increasing population pressures, stagnant economies, rapidly changing global political and economic rules that appear at first glance to be leaving the continent further and further behind. While prospects for Africa appear bleak to many,

this report notes other, more positive signs, other winds of change, that are happening throughout the continent at both the national and local levels.

With political liberalization and opening of economic systems, the entrepreneurial spirit within Africa, which has always been vibrant, is now increasingly unfettered. This spirit also takes into account the longer term. While the road ahead is decidedly steep and uncertain, the future is not necessarily as bleak as many observers have believed.

During the last five years, over \$300 million has been provided to programs in Africa supporting environmentally sound development. These programs have focused on three priority areas: sustainable agriculture, biodiversity conservation, and tropical forest management. While the scale of funds provided by USAID over this period has been substantial—making the U.S. Government one of the largest donors for natural resources management programs in Africa—the significance of this investment lies far more in the nature of the programs themselves.

In previous years, USAID (like other donors) supported discrete projects that were directed at helping individual farmers to improve their livelihood. While many of these were good projects, the problems afflicting Africa have proved to be more systemic. These problems include the lack of effective management at local levels, prices that promote short-term use over long-term management, and other policy and market failures. Over the last five years, USAID's programs have attempted to help farmers and herders by simultaneously bringing down the barriers of change, and putting in place the institutional, technical, economic, and political conditions that support initiative.

This document outlines experiences and success to date in each of the three priority areas described above. It also provides examples of change in a variety of countries, including Niger, Lesotho, Madagascar, and Mali. The programs outlined here often are multifaceted: they support the work of private voluntary organizations at the community level, provide technical assistance to government agencies and others involved with managing the natural resources base, support host-country initiatives to better plan and manage their environmental future, and provide incentives for changing underlying policies such as land tenure.

One major initiative has been to support the National Environmental Action Plan (NEAP) process. In several countries, USAID has become the lead bilateral donor, providing financial support and leadership in the field. Key countries with NEAPs receiving USAID support include the originating country of the concept, Madagascar, as well as Uganda, The Gambia, and Rwanda.

This report also notes some of the work underway to support other concerns of the United States: the protection of elephant habitats, the conservation of biodiversity, and the mitigation of

global climate change. For each of these efforts, USAID has carried out initiatives within the spirit and letter of the DFA, emphasizing those ways in which these objectives can be met in a manner that draws on the interests and concerns of those individuals who count on the natural resources base for survival.

This report concludes with a series of country examples, showing what is possible when donors work together with Africans to promote those underlying conditions that lead to sustainable growth. The key lesson is one of patience. To be effective, donors and governments must think in the long term. Even if their planning cycle is relatively short in time, they must be prepared to support efforts designed to lead to change over the long term. This will require a different way donors do business, and count success.

An emphasis on short-term results only, without identifying and supporting improvements in the underlying conditions is bound to fail. USAID believes that its experience under the DFA encourages an emphasis on the longer-term approach—an approach that leads to sustainable growth in Africa's future.

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## EVOLUTION OF USAID PROGRAMS ON NATURAL RESOURCES MANAGEMENT IN AFRICA

### 1976

- Sahelian drought renews USAID interest in natural resources. Attention to implications of fuelwood and charcoal harvesting for environmental deterioration

### 1985

- USAID enters into cooperative arrangements with the International Institute for Environment and Development (IIED) and World Resources Institute (WRI) to pursue programs of mutual interest, including environmental planning and sustainable agriculture.

### 1986

- USAID hosts NGO workshop, "Expanding the Role of NGOs in National Forestry Programs in Africa."

### 1987

- Africa Bureau drafts and initiates the Plan for Supporting Natural Resources in Sub-Saharan Africa (PNRM).
- Development Fund for Africa (DFA) approved.
- USAID/Rwanda authorizes project on environmental policy and biodiversity.

### 1989

- \$43 million regional biodiversity and natural resources program for southern Africa authorized, supporting bilateral and PVO efforts in Zimbabwe, Zambia, and Botswana, and the Southern Africa Development Coordinating Committee (SADCC) regional NRM program in Malawi.

### 1990

- NRM Organizing Framework approved by Bureau for use in design and monitoring of natural resources programs, and modified for Agency-wide use in USAID.
- Africa Bureau "Sub-Saharan Regional Workshop on Natural Resources Management," convened in Togo, reviews USAID's experience in implementing the 1987 Plan.

### 1991

- First Collaborators' Workshop convened of groups carrying out applied research on NRM for the Bureau.
  - Thirty-three African countries complete elephant conservation plans (18 of which were funded by USAID).
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- Africa Bureau convenes the "Regional Workshop on Natural Resource Management Tools and Applications," held in Queen Elizabeth National Park, Uganda, with USAID technical staff from 25 countries.
  - USAID/The Gambia authorizes \$23 million for integrated agriculture and natural resources management program.
  - USAID/Uganda authorizes \$30 million Action Program for the Environment (APE).
  - USAID/Guinea authorizes program on environmental policy and sustainable agriculture.
  - USAID/Kenya authorizes \$7 million program in support of the Kenya Wildlife Service.
  - USAID/Niger authorizes \$25 million NRM-based Agriculture Sector Development Grant II Program.

### 1992

- USAID/Senegal authorizes \$19.75 million NRM-Based Agriculture Research Project.
- Africa Bureau updates the PNRM, providing regional environmental strategy for the Bureau.
- USAID/Madagascar authorizes the final component of its \$110 million program in support of the National Environmental Action Plan (NEAP).
- Workshop on "Implementation of the Africa Bureau NRM Analytical Agenda."
- Procedures for establishing endowments in support of NRM and NEAP programs developed, in conjunction with USAID/Madagascar.
- Forest Code revised in Niger, providing key enabling condition for improved natural resources management and culminating seven years of Mission effort.
- USAID/Mali-sponsored land tenure work by the Land Tenure Center plays central role in national-level debates (ongoing).
- USAID/Senegal signs \$36.0 million P.L. 480 Title III Program that, among other purposes, supports the introduction and establishment of a new Forestry Code.

### 1993

- Forest Code revised in Senegal, providing foundation for the transfer of natural resources user rights to farmers.
  - Africa Bureau cohosts "Colloquium on Natural Resources Management in Africa: Options and Prospects for Sustainable Development"
  - NRM Progress Report, *Towards a Sustainable Future for Africa: Improved Natural Resources Management under the Development Fund for Africa (DFA), 1987 to 1993*, released.
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# Introduction

## The Image of Africa in Decline

While much of the Third World was growing during the 1970s and 1980s, Africa seemingly remained mired in poverty, poor government, and uneven growth. It became clear to the U.S. Agency for International Development (USAID) and to the U.S. Congress that the problems facing much of Africa were systemic and multidimensional. Continuing to pour in donor funds to deal with the symptoms but not the cause of the malaise gripping the continent was not likely to turn the countries of Africa around.

## The New Africa

A new approach to development was required, both to unleash the inherent entrepreneurial spirit of most Africans and to improve the effectiveness of public sector institutions and donor contributions to better serve that spirit. This new approach required a new way to do business in Africa.

Experience told USAID that this new way could not be prescriptive—there are no magic solutions—and that the vital energy to achieve the goal would have to come from the African resources manager (the farmer, herder, woodcutter, and fisherman). The new approach had to focus on establishing an enabling environment that encouraged these resources managers to make decisions that not only would improve their livelihoods but also would help sustain these increases by maintaining the productive capacity of the natural resources base. The new approach meant that USAID, along with host governments, has had to put resources into identifying the enabling conditions and how to establish them and then to follow up with programs to establish those conditions. It also meant that the bulk of the payoffs from these

investments will not show up until after the investment programs are over and that provisions must be made to track progress over the medium and long term.

Major changes have indeed occurred in the way African natural resources management (NRM) projects are carried out. These changes are taking place as parallel shifts in the polity and economy of much of Africa occur.

This is not a coincidence. The winds of change in terms of governance and local economic and political control are directly linked to improved conditions leading to more sustainable resources use. Sustainable natural resources management is neither antigrowth nor inherently slow-growth. However, it does require from donors, governments, and nongovernmental organizations (NGOs) a multifaceted, long-term approach. The Development Fund for Africa (DFA) has permitted the development of a strategy that assists Africans to expand and prosper for generations to come. Clear evidence exists that Africans are taking more control over their lives locally and nationally.

## Africa in Transition

Over the decade of the 1980s, the prices of many African exports slumped and Africa's share of world trade declined by roughly 50 percent. Domestic and foreign investment dwindled, precluding growth in local industries and diminishing the capacity to generate foreign revenues needed to service debts. Struggling national economies became mired in foreign debt.

Compounding the macroeconomic picture in recent decades have been dramatic increases in the number of people that African economies must accommodate. Since the early 1960s, the population of sub-Saharan Africa has doubled. It now

exceeds 500 million and is expected to reach 1 billion by 2025. This rapid population growth strains sub-Saharan Africa's resources base.

Large parts of Africa are highly dependent on weather. For the Sahel and much of East and Southern Africa, aggregate levels of rainfall can vary, and, even more critically, so does its spatial and temporal distribution. For this reason, African farmers and herders have evolved complex, risk-spreading mixes of farming and range practices, and developed off-farm income options to spread the substantial climate-related risk facing the continent. It is enough of a challenge to improve agricultural productivity in light of these significant risks; present evidence, however, suggests that global climate change will, over the next two or three decades, lead to increased variability.

The cost of this climatic variability can be substantial to countries, donors, and African farmers. The recent drought in southern Africa required the redirecting of short-term programs and investments to meet the disaster relief needs of the region, and acted as a brake to the region's moves toward reaping the benefits of structural adjustment.

Throughout Africa, there is also a transition being made to more open economies. Many sub-Saharan African nations have initiated reform measures designed to liberalize markets. These measures have included accelerating levels of imports and the long-term investments essential to developing a sustainable resources base.

At the same time, the worldwide movement toward democratization is making a forceful appearance in African nations, reducing autocratic approaches and encouraging local control over resource use and management. These trends bode well for resources management programs, which are more likely to succeed when the people who depend on the resource base have ultimate authority over its constructive use and exclusive rights to benefit from those uses.

With more technologies available, and with political and economic barriers falling, the potential for substantial advances in national economic growth clearly exists. But action plans in natural resources management must coordinate conserva-



*NDjelo Togo, a farmer-gardener near Mopti, Mali, manages six hectares of a mixed garden / pole plantation. He harvests the poles on a three-year rotation and has little trouble marketing them in nearby markets. He initiated the enterprise after soliciting technical assistance from USAID/Mali's Village Reforestation Project. His confidence in the venture was aided by having first made first-hand observation of pole plantations in other countries during his service with the French army. By his example, dozens of his neighbors have also initiated pole plantations. (Photo by Mike McGahuey)*

tion and development, satisfying short-term objectives and finding ways to sustain resources in the long term.

The overwhelming needs of sub-Saharan Africa provide numerous opportunities for donors. The diminished emphasis on large-scale interventions that have recurring costs and the increased emphasis on small-scale management efforts in local contexts provide reasons for optimism. So much needs to be done so quickly. Donor funding, however, is becoming increasingly scarce as a result of worldwide economic slowdowns and changes coming from the end of the Cold War. All these needs and trends have one clear message: there are more legitimate claimants for every assistance dollar today than ever before.

### **The Development Fund for Africa Response**

In the face of the deteriorating economic situation in Africa, the Development Fund for Africa was

approved by Congress and initiated by the Africa Bureau in 1987. The DFA challenged the Bureau to increase its effectiveness in helping Africans to help themselves at improving their standards of living and prosperity. The DFA also challenged the Bureau, with a strong development mandate from Congress, to make significant progress toward sustainable and broad-based market-oriented economic growth—the DFA goal. In return, the Bureau has had to focus programming on directly improving people’s lives and on reporting this to Congress.

Sustained and broad-based economic growth for most African countries is inextricably linked to responsible stewardship over the natural resources base. The DFA recognizes the above linkage. Strategic Objective 3 of the DFA action plan calls for “developing the potential for long-term increases in productivity.” The Bureau’s Plan for Supporting Natural Resources Management (PNRM) reflects this same view. Approved in 1987 and updated in 1992, the PNRM merges support for stewardship of the natural resources base with support for development of the rural economies of African nations where USAID has NRM programs.

Congress backed up the importance of sustainability and natural resources by asking USAID to meet a target of 10 percent of all DFA funds for natural resources activities. Given the scale of these new investments and the DFA’s requirement for intelligent design, implementation, and monitoring of impact, USAID has worked hard to ensure that these funds reach the objectives identified by Congress.

### **The Dynamics of Natural Resources — It Takes Time to Get Results**

USAID was faced initially with a potentially serious constraint: the apparent difference between the 5-year time horizon of the DFA and the time needed to begin to show long-term impacts from improved resources management. Certain approaches (the adoption of new annual crops, or improved water harvesting techniques) may im-

prove the welfare of farmers within a year or two but often are not sufficient by themselves for sustainable growth. Other interventions—the implementation of natural forest management plans—often require up to 10 years. Improved soil fertility through agroforestry may take even longer, while the long-term benefits from the conservation of biodiversity or from ameliorating the adverse impacts of climate change can only be fully assessed in terms of decades, not years.

What to do? In the past, faced with pressure to increase budgets in the face of a crisis (such as desertification), donors have tended to throw money at the perceived problems, often achieving quantifiable results within a few years (numbers of trees planted, amount of land in protected areas). But this approach has proved to be flawed time and again. In most instances, such hurry-up strategies are not sustainable, nor do they have broad-based impacts, having been essentially designed, implemented, and funded from the outside.

USAID has resolved this problem by working with, rather than against, the basic tenets of the DFA—to focus on the underlying systemic constraints and incentives, on those factors that seem to make a difference. It is far better to tackle these more difficult issues now, even though initial impact may be modest, if it can be demonstrated that such change has a good chance to lead to long-term, *sustainable* change.

### **DFA Support to Better Natural Resources Use**

The DFA’s goal is broad-based and sustainable economic growth. In most countries where USAID has Missions, agriculture is an important, if not critical, engine of growth. Achieving the DFA goal requires that the productivity of the natural resources base be maintained or even improved. As a consequence of this reality, as well as the way that USAID is organized and committed to helping African countries improve the way natural resources are managed, USAID has become a lead donor in natural resources management and environmental productivity in Africa. In many coun-



*Through the Development Fund for Africa, USAID is enabling projects, such as windbreaks in Niger, that advance long-term soil and water conservation. (Photo by Tim Resch)*

tries, the Agency is the lead donor, both intellectually and financially. This leadership has come from several key attributes of the DFA:

- scale of investment;
- partnership between USAID, the private voluntary organization (PVO) community, and governments;
- focus on systemic structural change;
- flexibility and willingness to learn;
- clear mandate;
- clarity of purpose and objectives; and
- country and subject matter focus.

### **USAID Field Missions Gaining Leadership**

A major change under the DFA mandate is that USAID's Africa Bureau attacks the development problems systemically instead of symptomatically. Five to ten years ago, Mission projects often were designed in reaction to symptoms of underlying causes: if fuelwood was a salient problem, a fuelwood project would be designed and implemented. The same approach would be taken for problems of soil, range, or forest degradation. The net result was that Missions' portfolios would be full of small, short-term projects limited in space and time and isolated from past and potential experiences.

In contrast, approaches developed under the DFA aim at identifying and attacking the root causes of these symptoms and at building up the body of knowledge about the process of enabling the beneficiaries to help themselves, and then translating this experience into policy reform programs, private voluntary organization (PVO)-managed field efforts, and other interventions.

Through the systemic approach, a growing number of USAID Missions are seen as being leaders in the development of policy-based programs.

### **USAID's Comparative Advantage**

USAID's decentralized nature lends itself to capitalizing on the lessons learned from related field programs. Many other bilateral and multilateral donors run programs from a donor country's capital city or a regional office. In this centralized manner, projects often are designed by teams of experts flown in for visits of several weeks. During this time, the experts conduct their analysis and make their recommendations for the project elements.

Projects designed and monitored from afar depend on the assumptions of the initial analysis to track progress. But, as USAID has found, the analysis conducted during the design is rarely sufficient. The most valuable "grist" for analysis comes from the implementation experience when the uncertainties must be dealt with. It is not by accident, therefore, that USAID Missions are taking the lead in dealing with the full, complex array of issues linked to widespread adoption of appropriate NRM practices. These issues include the following: resource tenure, decentralization, reorientation of the technical services, support for NGOs, and strengthening the skills and confidence of local communities to manage NRM-based enterprises.

## Local Change Leads to Widespread Positive Impacts

Already, there are many signs of change in behavior throughout Africa attributable to USAID Missions. Examples of impacts affecting rural producers are:

- In Lesotho, herder associations increased the productivity of rangelands and livestock husbandry by placing a substantial area of the rangeland under management plans.
- Thousands of Malian farmers increased their yields and incomes from mixed farming by adopting practices that increase and sustain the productivity of soils, forests, and forages.
- In Niger, hundreds of woodcutters increased their incomes from woodcutting enterprises that depend on improved management of marginal forest lands.
- In Malawi, farmers complemented their intensive farming practices with agroforestry practices that increase the prospects for sustaining productivity gains.
- In The Gambia, better soil management practices enabled producers to convert hundreds of salt-laden hectares to productive land for growing rice and vegetables.

The above field-level increases are encouraging, but they represent only localized achievements. In the aggregate, the rural economies of

most African countries where USAID works continue to deteriorate.

Can these localized victories be significantly more widespread at the next DFA five-year Report? Can hundreds of thousands or even millions of African farmers, herders, woodcutters, fishermen, and hunters be measurably better off because they are helping themselves in the same way that producers in the above examples helped themselves? *The simple answer is yes.*

It can be said with some confidence that the diffusion of impact-producing NRM practices will be significantly accelerated over the next five years. The basis for this confidence is that, under the DFA, considerable progress has been achieved in knowledge and understanding about:

- the fundamental barriers to greater diffusion of appropriate NRM practices—those that increase productivity while safeguarding the natural resources base, and
- the programmatic options for overcoming the barriers.

Most of USAID's natural resources management programs in Africa are now structured to establish those factors that appear to be preconditions for sustainable growth. The full impact of these programs will emerge over the next few years as farmers and other resources users begin to change behaviors and adopt new approaches.

This, coupled with substantial flows of funds

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## GLOBAL ENVIRONMENTAL ISSUES AND THE DFA

USAID made a conscious decision with the PNRM to focus its attention, resources, and personnel on those issues most directly related to increasing the productivity of the natural resources base—sustainability of agriculture systems, sustainability of tropical forestry management, and increasing the economic impact of biodiversity conservation. USAID, Congress, and the U.S. public have had additional, more global, or transnational interests parallel to the objectives of the DFA—for example, protection of elephants and other animal species, conservation of bio-

diversity and tropical forests, and mitigation of global climate change.

The Africa Bureau response to these global needs has been to design programs and activities that are simultaneously responsive to the DFA objective of broad-based sustainable economic growth and to the global environmental necessity. These global concerns are inextricably linked to African development. This document, therefore, simultaneously reports on success in both fronts.

directed at providing the conditions that will lead to broad-based change, leads the Bureau to be confident that impacts from the DFA-funded natural resources programs will expand exponentially and, most important, sustainably.

USAID has not been perceived as a major donor in natural resources in previous years, while the programs of the multilateral donors have been highly visible. In truth, however, the U.S. Government has taken the position of leadership in Africa in support of the environment, influencing substantially the programs and approaches of bilateral and multilateral donors alike.

Part of this newfound influence has come from the scale of investments (from approximately \$30 million per year in the mid-1980s to nearly \$80 million obligated in FY 1992). However, USAID is convinced that far more important has been the intellectual underpinnings and flexibility provided by the DFA itself.

The level of funds is, in fact, not as critical as the focus on those conditions that can lead to self-sustaining change. There is simply not enough money within the donor community to fund the one-on-one retraining of the African small farmer. Even if there were, it is clear that such approaches would be doomed to failure. However, a more systemic focus offers to be far more cost-effective. Such an approach, however, makes it more difficult to link directly the expenditure of donor funds to farmer actions.

USAID's focus on marrying the self-interest of average Africans with those factors that will improve the quality of life of their families in the future is an essential element that permeates USAID's natural resources management programming in Africa. This element of the program leads the

Agency to expect that these investments will have major, sustainable, positive impacts.

### **Summary of Lessons Learned about the DFA and Natural Resources**

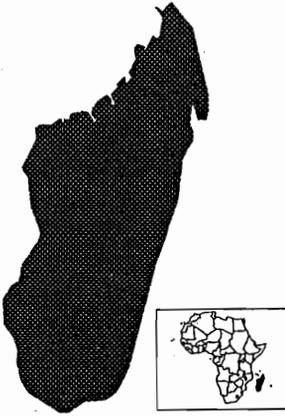
Several key lessons can be learned by examining the DFA's record since 1987. These include:

- Most significant of all, USAID is discovering more and more cases where host governments and Missions have "gotten it right" as measured by economic changes at the community and individual level attributable to changes in policy, institutional, and socioeconomic conditions.
- Under the DFA, the Africa Bureau is mandated to "keep score" by tracking progress toward achieving people-level impacts, not just by monitoring inputs and outputs. The temporal dimension of NRM programs means that progress is often tracked by proxy indicators.
- The analytical processes of Missions and USAID/W have changed, and this increases the Bureau's collective ability to capitalize on lessons learned.
- Missions are sticking with programs longer and challenging basic assumptions about sustainable economic growth.
- Host governments and Missions are more willing to test strategic options on a localized scale instead of dogmatically prescribing them at the national level. This change is in recognition that the development process builds on a complex set of incompletely understood variables.

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## HYPOTHESIS TESTING AS A COMPONENT OF PROJECT DESIGN

### *Madagascar's Sustainable Approaches for Viable Environmental Management Project*



Many projects attempting to improve natural resources use, or to conserve biodiversity, have tended to define success in terms of a preselected number of villages helped, hectares of land retrieved, or species protected. However, both the long time frame needed for improved natural resources management

and a focus on conditions that will lead to long-term change requires a different design approach, one that gives flexibility to learn and adapt.

The best example of this so far has been the Sustainable Approaches for Viable Environmental Management (SAVEM), designed by USAID/Madagascar. SAVEM is a \$26 million project to establish sustainable human and natural ecosystems in areas of Madagascar where biodiversity is threatened.

If this goal is attained, it will be indicated by there being no deterioration in the biodiversity in Madagascar (as measured by appropriate indexes), by better understanding biodiversity and of the interactions between humans and other members of Madagascar's ecosystems, and by a stabilization at sustainable levels of Madagascar's 50 protected areas.

SAVEM's purpose is to identify and initiate systems (including institutions, methods, and behaviors) for the management of protected areas of Madagascar and the peripheral zones adjoining these areas on a sustainable basis. The project seeks to realize this purpose through five interrelated sets of outputs. These are:

- 1) establishment of a National Association for the Management of Protected Areas (ANGAP) with sufficient authority and capability to perform the management function;
- 2) establishment and operation of a Biodiversity Planning Service (BPS) within ANGAP ca-

pable of tracking and communicating information on biodiversity conservation;

- 3) implementation of interactive management plans in five to six protected areas of Madagascar and the adjacent peripheral zones;
- 4) support for Malagasy individuals and communities interested in conserving biodiversity in 50 priority areas; and
- 5) enhancement of the managerial and technical capacity of the Malagasy Government and of NGO personnel active in the conservation of natural resources.

Two basic strategies are being used to implement SAVEM. The first, or traditional, approach will help develop the country's institutional, managerial, technical, and human resources. The second, or nontraditional approach, will test the hypothesis that local populations will alter their behavior from destruction to conservation of their environment if they see a relationship between their economic and social well-being to the conserved area and if they are empowered to make the right kinds of decisions. The project's purpose will have been entirely achieved if, by the end of the project, the following has taken place:

- SAVEM, its grantees, and the Malagasy Government agencies with which they collaborate have identified and begun to test various hypotheses concerning the management of sustainable, interactive development efforts in up to six protected areas.
- The populations of these peripheral zones are using improved production adaptations that decrease their need to rely on continued, nonsustainable use of resources located within those protected areas.
- The same local communities, including both governmental and nongovernmental representatives, are involved in the interactive management of the resources of the protected areas adjacent to their homes.
- Public awareness of the prospects for interactive management of protected areas has increased.

# Implementing the Development Fund for Africa and the Plan for Supporting Natural Resources Management

## Background

Revitalizing the role of the U.S. Agency for International Development in promoting sustainable economic growth required substantial institutional and operational restructuring. The momentum for change reached critical mass in late 1987 with the Development Fund for Africa. Mandated by the U.S. Congress, the DFA sought to redress inefficiencies of the past while dedicating USAID assistance to the overall goal of achieving “sustainable, broad-based, and market-oriented economic growth.”

Since 1988, Congress has steadily increased funding for the DFA. The increases reflect a recognition of the urgent need for development efforts in Africa and an endorsement of USAID’s activities in support of DFA goals.

The DFA action plan, developed by the Africa Bureau in May 1988, presents four strategic objectives:

- improve the management of African economies,
- strengthen competitive markets,
- develop the potential for long-term increased productivity, and
- improve food security.

Each of these objectives has various subobjectives.

Although each objective is relevant to NRM, the most relevant is the subobjective of achieving “sustainable increases in income and/or productivity through better management of natural resources” (strategic objective 3.1).

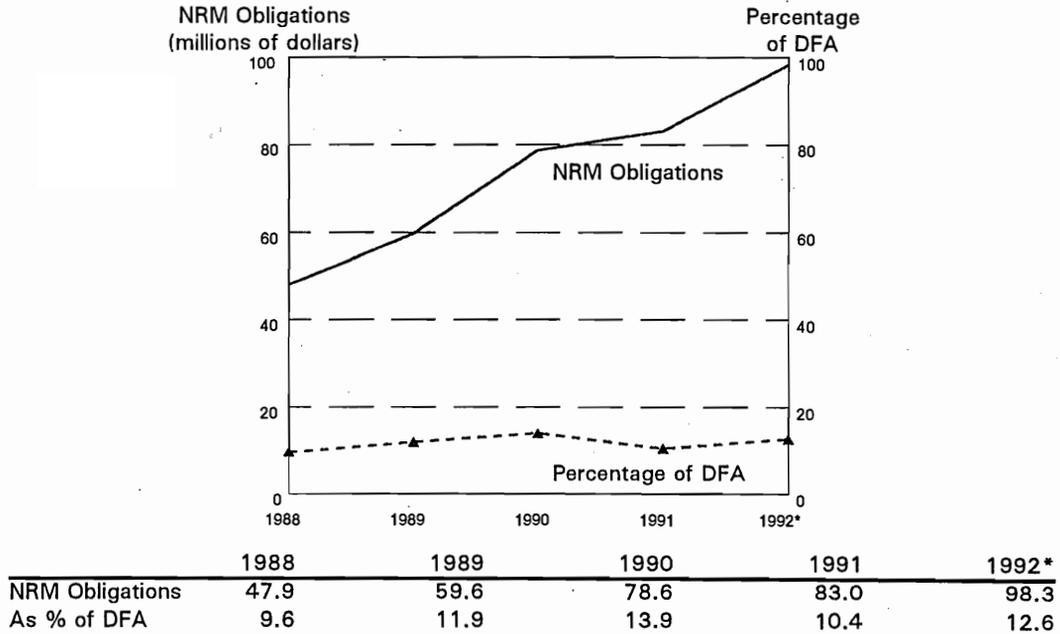
## Budget and Flows of Resources

A key consideration in establishing the DFA was the recognition that assistance to Africa needed to be increased and refocused and that USAID should be able to count on a relatively constant or increasing level of funds over a 5- to 10-year period. In 1988, development assistance funding for sub-Saharan Africa totaled \$500 million (up from \$389 million in 1987); of the \$500 million, \$43.8 million (7 percent) was obligated for natural resources management activities.

For 1992, NRM funding increased to \$75 million, or roughly one-tenth of the total sub-Saharan Africa allotment. Fourteen countries, designated as priority countries on the basis of need and effectiveness of solutions, received 75 percent of the allocations: Botswana, Cameroon, The Gambia, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mali, Mozambique, Niger, Rwanda, Senegal, and Uganda. Nine other countries received 13 percent of allocations: Burkina Faso, Cape Verde, The Comoros, the Congo, Côte d’Ivoire, Equatorial Guinea, Namibia, and Zaire. Remaining funds were allocated to general Bureau-wide activities that support country-specific programs.

For FY 1993, budgets allocate almost \$95 million for NRM projects. Priority countries will continue to receive 75 percent of total funding. This consistency reflects a commitment to supporting ongoing projects in countries where the social, political, and economic dynamics of resource use increase the likelihood of people-level impacts.

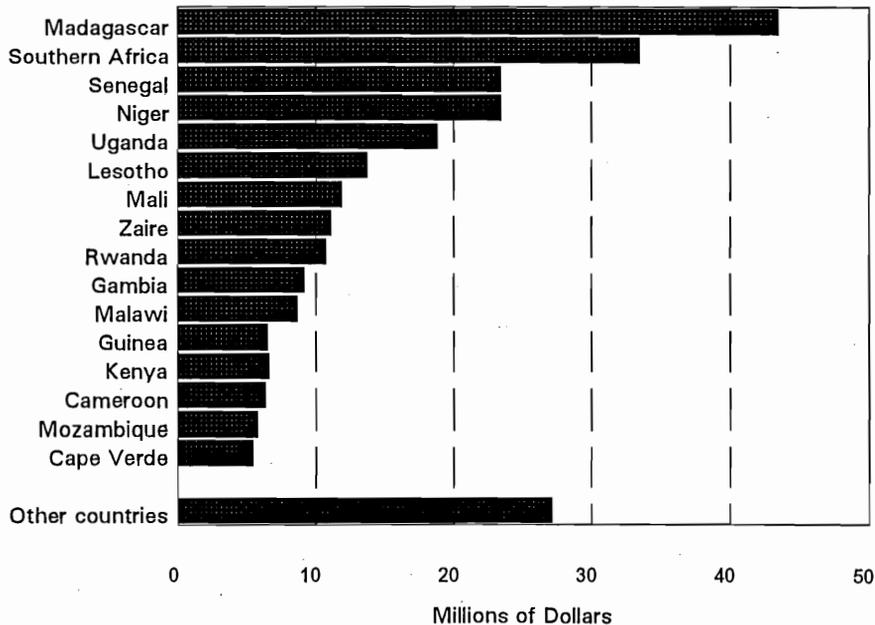
## NATURAL RESOURCES MANAGEMENT AND THE DFA: YEARLY OBLIGATIONS



\* Estimate  
Includes DFA and relevant Central Bureau fund.

## NATURAL RESOURCES MANAGEMENT AND THE DFA: MAJOR COUNTRY PROGRAMS — 1988-92

Total Obligations under the DFA



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## AFRICA BUREAU ANALYTIC PROGRAM

To ensure that resources are allocated to understanding the process of change, the Africa Bureau:

- Designates the Office of Analysis, Research, and Technical Support (ARTS) with responsibility to work with Missions to systematically capture and capitalize on lessons from the field. Within ARTS, the NRM Unit assists Missions in implementing the Plan for Supporting Natural Resources Management and in transferring lessons learned. The NRM Unit also synthesizes information for senior management and for Congress. The Research and Development Bureau manages several contracts and grants that facilitate this work.
- Supports the work of a wide range of participating organizations, including World Resources Institute (WRI); the Land Tenure Center; the Biodiversity Support Project (BSP), a consortium of World Wildlife Fund, The Nature Conservancy, and WRI); Winrock International; Goddard Space Flight Center; the U.S. Geological Survey; the U.S. Forest Service; the U.S. Department of Agriculture; the Multi-Donor Secretariat of the World Bank; and private consulting firms.
- Supports several advisory bodies, including the Policy Consultative Group and the Information Systems Consultative Group (managed by WRI), and the Global Climate Change Advisory Panel and the Biodiversity Advisory Panel (managed by BSP).
- Utilizes a program modality in many Missions (rather than a project modality). As noted below, the majority of NRM funds are now being used to finance complex multicomponent sector programs.

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### Plan for Supporting Natural Resources Management

The Africa Bureau's Plan for Supporting Natural Resources Management (PNRM) was initially approved in 1987 and updated in 1992. The PNRM presents a strategy for formulating and executing Mission-level programs, particularly those that seek to address the problems of desertification, deforestation, soil degradation, and the loss of biological diversity. It establishes priorities by subject matter and country.

Although some modification has occurred since 1987, the PNRM has provided a basic consistency to USAID's strategy in sub-Saharan Africa over the past five years. It responds to the role of resources management programs in promoting sustainable agriculture and contributing to broad-based economic growth.

In preparing the PNRM, regional experts conducted in-depth assessments of past programs in consultation with knowledgeable and experienced members of private voluntary organizations (PVOs), nongovernmental organizations (NGOs),

and the academic community. The PNRM has become an integral part of activity assessment in most USAID Missions in sub-Saharan Africa, utilizing in the upgrading of ongoing projects and the designing of new activities.

### Complexity of USAID Responses

Since 1987, analysis has improved understanding of the conditions that contribute to change—the conditions that enable beneficiaries to improve their livelihoods by adopting NRM practices. These *enabling conditions* include:

- localized authority and secure opportunities to benefit from the responsible management of the natural resources base (for example, use rights to products available through responsible natural resources management);
- skills and confidence to manage NRM enterprises;
- open access to markets and sources of services;
- appropriate technologies; and

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## FINANCIAL SUSTAINABILITY

Given the long-term nature of environmental and natural resources management interventions, and the relatively short time frame of most donor programs, many donors and NGOs have been trying to develop approaches for improving the long-term flow of funds.

USAID has become increasingly interested in the possibilities for the installation of foundations and other entities provided with an interest-earning endowment, as a means to improve the financial sustainability of environmental programs. There is also considerable interest in the use of such mechanisms to support programs related to other subjects, such as agricultural research or community development.

A key problem in the past has been the accountability under USAID regulations of dollar funds and generated local currency. In addition,

there has been some question as to whether endowments directly attached to the projects of U.S.-based PVOs fully support the Agency's other interest in promoting decentralization and improved governance.

Under the Knowledge and Effective Policies for Environmental Management Program in Madagascar, USAID has developed a unique approach to endowments, incorporating a local foundation as one of the conditionalities of NPA. In this manner, the funds would come from reallocations of Malagasy Government moneys presently allocated to debt servicing, drastically limiting USAID accountability and ensuring that the endowment is perceived to be primarily a Malagasy institution.

This experience in Madagascar is being used in developing more generalized guidelines for other Missions and organizations.

- 
- responsive government policies and institutions.

A study of 19 USAID projects in Africa by the Research and Development Bureau's Implementing Policy Change Project found that Missions shifted from the project to the policy-oriented program modality in the years following the DFA. This trend has accelerated, and the majority of NRM funds are now being used to finance complex multicomponent sector programs—which may include policy reform-conditioned sector grants, PVO subgrants, technical assistance, environmental monitoring and information systems, and the establishment of foundations endowed with local currency (see Box, above). These sector programs are often in conjunction with multidonor strategic planning efforts such as the World Bank-led National Environmental Action Plans.

### Assessment of Program Impacts

Although the DFA provides substantial latitude in the development of its programs, it requires specific actions to ensure accountability. The Bureau must assess the impact of its policies on an annual basis and apply the findings to reduce waste and expedite remedial measures. To fulfill this requirement, the Bureau designed a comprehensive and uniform method to track the progress and increase the effectiveness of NRM and other initiatives. This reporting method is the Assessment of Program Impacts (API).

USAID Missions in sub-Saharan Africa complete an API each year. Each API details the nature of field work in NRM, report progress in achieving targets and objectives, identify lessons learned, and track NRM impact by utilizing performance indicators. Thus, APIs monitor progress and help determine the effectiveness of programs underway. They also provide a basis for sharing information among Missions, expediting the application of lessons learned from one country to another.

Since the full impact of a NRM program may

## NRM ANALYTICAL FRAMEWORK

To better understand the relationships between program inputs and people-level outcomes, USAID's Africa Bureau developed a five-level Natural Resources Management Analytical Framework in early 1988 to organize indicators in a hierarchical order. People-level impacts, measurable in increases in yields or income, were positioned at the top (Level V). At Level IV were the biophysical changes that occur in the production of the yield changes. Level III grouped the changes (or maintenance of practices) in the management of the natural resources base by farmers, herders, woodcutters, fishermen, etc. These practices were generally adopted in pursuit of welfare or Level V. Level II recorded the socioeconomic, policy, and institutional conditions associated with the adoption of practices, with Level I including the program actions that establish the conditions.

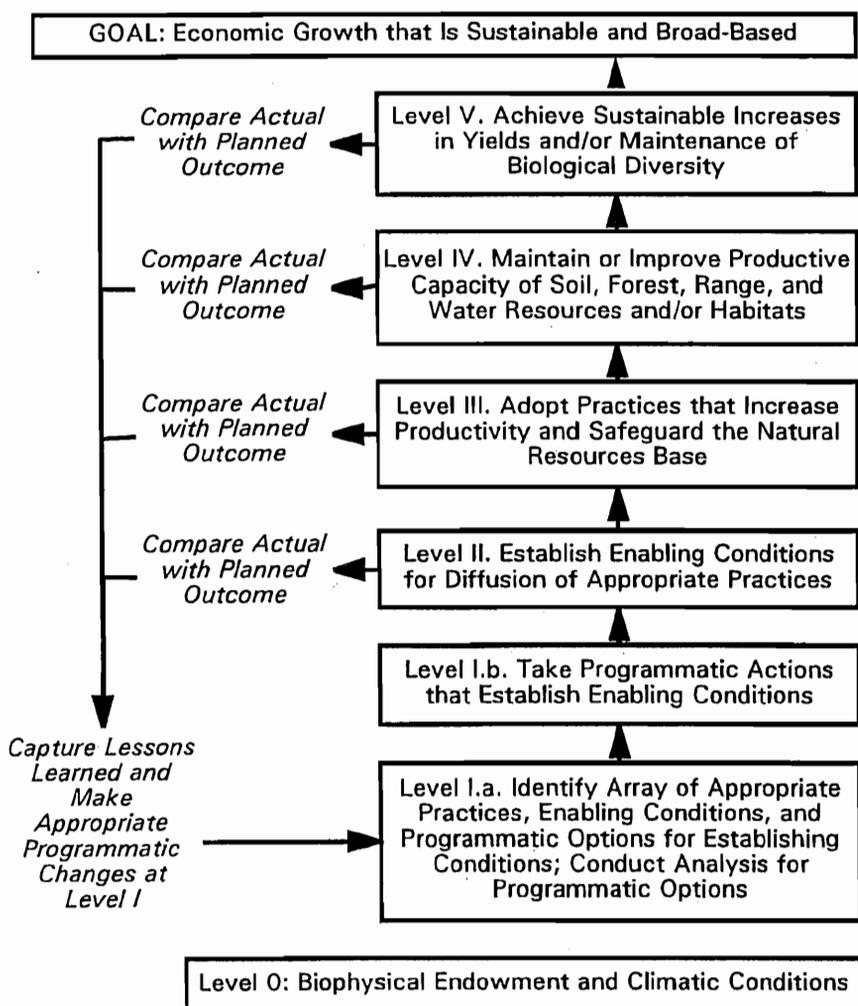
As USAID Missions moved from projects to programs, this NRM Framework was used to reason through the long-term process between program inputs and people-level outcomes. This use evolved into the notion of using the Framework to organize monitoring and evaluation activities. It was noted that one of the most important products of any project or program is the knowledge gained during its implementation—especially that knowledge gained from the production of unanticipated impacts, whether negative or positive.

The Framework is designed to help pick up the lessons learned during implementation. As in the diagram, arrows form both an

iterative loop and a linear thrust. At each level, actual outcomes can be compared to those planned to validate the working premises upon which the program is built.

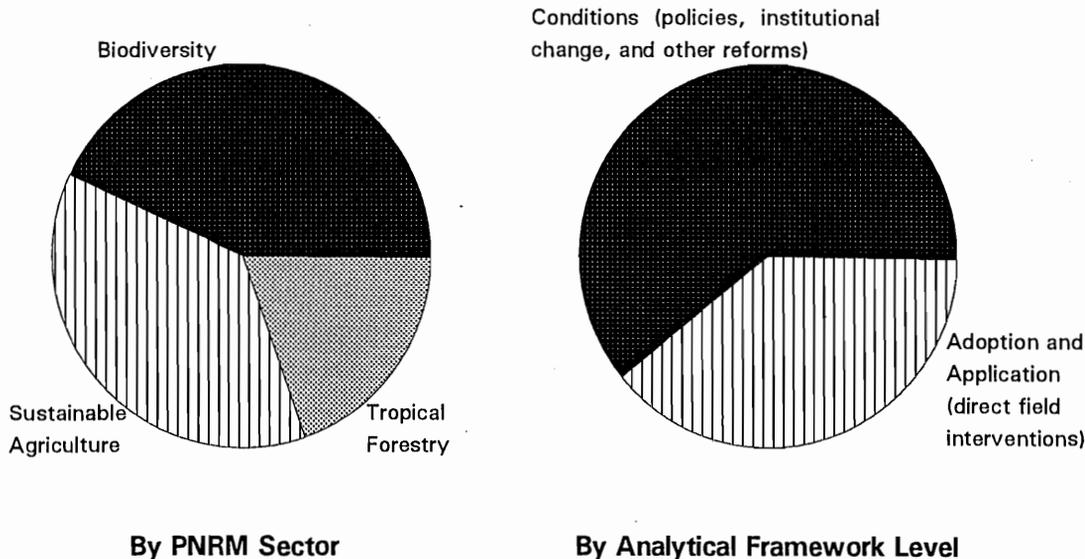
This upgraded use of the Framework focuses attention on the value of lessons learned from the implementation of programs. Instead of being penalized for falling short of specific targets, Missions should receive credit if they can identify why a target was not gained and can add to USAID's collective knowledge about the process of achieving the DFA goal.

### ANALYTICAL FRAMEWORK



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## AFRICA BUREAU NRM PROGRAMS BY PNRM SECTOR AND ANALYTICAL FRAMEWORK LEVEL



take 5 to 10 years to unfold, viewing progress within a broad framework of change is useful. In addition to the API, a framework, developed by the Africa Bureau to help in assessing indicators, organizes impact indicators into a five-level hierarchy and shows how they relate to each other and to the goal of sustainable development (see Box, page 22). Each level includes the necessary set of actions that contribute to adoption of practices at the next higher level.

Africa Bureau staff review each API report to identify data and narratives relevant to monitoring impact. Through this review, the Bureau is able to capture lessons learned and improve program efficiency.

### Country-Level Reports and Site Visits

Many country-level reports are rich sources of information and analysis relating to NRM, with technical data and inventories of ongoing and planned activities. Included are the NRM assessments and Action Plans that USAID completed in 13 countries, program designs, and reports evaluating NRM activities in individual projects.

In some cases, intermittent visits to field sites have enabled staff to observe change first-hand. These personal assessments, recorded in trip reports, provide valuable insights into the change process and anecdotes about the experience of Africans who have benefited from USAID programs.

# Implementing the Plan for Supporting Natural Resources Management

## *A Sectoral Review*

The Plan for Supporting Natural Resources Management in Sub-Saharan Africa identifies several problem areas for Mission attention. These problems fall within three programmatic areas: sustainable agriculture, tropical forestry, and biodiversity. This chapter outlines relevant issues in each program area and the response of the U.S. Agency for International Development.

### **Sustainable Agriculture**

The sustainable use of the natural resources base—soils, forests, range, water—to produce an improved livelihood is critical to the economic future of millions of African families. And, since the majority of Africans in most countries supported by USAID programs depend to some degree on agriculture, sustainable economic growth in these countries is linked to safeguarding the natural resources endowment.

For the purpose of this report, sustainable agriculture is defined as maintaining the productive capacity of the natural resources base in pursuit of a livelihood. Sustainable agricultural systems are not new to Africa; many examples exist of traditional systems based on judicious husbandry. In addition, in a small but a growing number of cases, new and promising technologies and practices are being incorporated.

Africa is a large continent and rich in diversity of farming systems. Consequently, sustainable agriculture is going to differ in some respects across regions and agroecological zones. For example, the systems and outputs of Rwanda—rich in volcanic soils but with high population pressure—are different than in Niger, with its poor soils and capricious climate. In Malawi, sustainable agriculture may be based around maize, but in Mali

it may be a mixed system. But, notwithstanding the variation, some characteristics are common to sustainable agriculture across sub-Saharan Africa.

First, sustainable agriculture is not synonymous with subsistence agriculture. To the contrary, as in the case of the Malian farmer, François Coulibali (see Box, page 25), sustainable management is often linked to intensification and shifts from subsistence crops to market crops. The case of Coulibali is not isolated. In most countries, a growing number of cases can be found where declines in natural resources degradation are linked to land use and intensification.

Second, diffusion of sustainable agricultural systems is a multidimensional process. The introduction of a new technology or practice may be necessary, but it is not usually sufficient to induce widespread adoption. Other contributing factors that programs need to support include security of use rights or tenure, farmers having first-hand knowledge of the practice, families or communities having skills and confidence in managing agricultural enterprises, access to markets and credit, and reliable and competent technical assistance.

Third, sustainable agricultural systems often incorporate forage crops and trees. The reason for this mix may be manifold. Most African farmers are risk averse (for valid reasons), and spreading the risks over a diversity of crops is one way to decrease the chance of catastrophic failure. Linkages also exist between the existence of on-farm trees, livestock, and soil fertility—a relationship that is understood by many farmers.

Fourth, sometimes the diffusion of sustainable systems is linked positively to demographic pressure. In the Sahel, farmers are switching from extensive to intensive practices in areas where the availability of land has become limited. In some

areas, land markets are developing for sites that were once degraded but have been reclaimed. Rwanda has the highest population density in Africa and some of the most intensive farming systems. But there is a limit to the carrying capacity of any region which, if passed, creates an untenable situation.

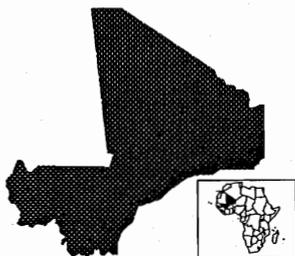
In sum, the concept as well as the practice of sustainable agriculture has old roots in Africa, and

research continues to develop new technologies. In addition, the Bureau has made substantial progress in identifying the enabling conditions for wider diffusion of the appropriate systems. Given that Missions are committing more funds to establishing those conditions, the prospects for wider diffusion are better today than prior to the Development Fund for Africa five years ago.

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## SUSTAINABLE AGRICULTURE

### *The Example of Mali*



During the past 12 years, François Coulibali, a farmer in Mali, has benefited from several USAID projects, transforming his farm from a subsistence to a commercial operation and sharing new ideas with hundreds of other farmers throughout the region. He began by agreeing to be a pilot farmer, a status that enabled him to receive special training, gain access to new technologies, and receive on-farm help in trying new practices. Through the years, his example has inspired many others to try new practices that increase yields while maintaining the productive capacity of the land.

Since 1980, yields on Coulibali's farm have increased dramatically. Average yields for millet are now 1,400 kilograms per hectare (kg/ha), up from 400 kg/ha; yields for sorghum are 1,500 kg/ha, up from 600 kg/ha. In his diversified operation, he also grows maize, cotton, groundnut, forage legumes, cowpeas, and pigeon peas—and he maintains a tree plantation, harvesting poles at regular intervals and selling them for use in construction.

Coulibali's farm is surrounded by a woody savanna, but he has cleared little new land in the last 10 years (a divergence from traditional slash-and-burn techniques). He maintains soil fertility by using substantial amounts of compost, applying judicious doses of mineral fertilizer, and

rotating crops regularly to incorporate nitrogen-fixing legumes. He plows under crop residue (instead of burning it), uses contour dikes and windbreaks to reduce erosion, and maintains field trees to provide wood, soil enrichment, fodder, oil, and food items.

With USAID funding, groups of farmers visit Coulibali's farm and others like it to see new ideas in practice. These farm visits are encouraging the transfer of technology. Estimates suggest that 80 percent of the 10,000 farmers in the region have adopted one or more new practices to improve productivity.



*Extension agents from the Malian Agricultural Service and USAID/Mali staff examine a gully plug that has enabled François Coulibali to reclaim productivity on his sorghum lands. (Photo by Mike McGahuey)*

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## CLIMATE CHANGE

The Africa Bureau's global climate change program centers on activities with two different yet complementary objectives: controlling emissions and mitigating the impact of climate change on the African population (in particular, the rural population).

### Emissions of Greenhouse Gases

While emissions of carbon dioxide from Africa are a small percentage of the global total, the continent's tropical forests represent a significant store of carbon and could pose a moderate global threat if deforestation accelerates. More important, Africa is the source for most of those greenhouse gases generated from savannah burning. USAID's response to this problem has been to develop a research strategy for the Congo Basin and plans for improving the ability of Africans to participate effectively in international forums on this subject.

### Impacts from Global Climate Change

While the international community has tended to focus its attention on the emissions of greenhouse gases, the potential impact on the developmental prospects of Africans has been understated. Compared to other continents, African growth is particularly vulnerable to climatic variability.

The cost of rehabilitation due to drought often far exceeds developmental investments. These costs hamper Africa's ability to restructure its economies and political systems, essential conditions for more sustained growth. The Africa Bureau of USAID is putting in place a strategy that gives equal import to impacts. This strategy improves the ability of Africans to mitigate the impacts of climate change. The strategy also emphasizes developmental approaches that are inherently flexible and adaptive to change, whatever that change may be.

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### Tropical Forestry

All but a tiny fraction of sub-Saharan Africa lies between the Tropics of Cancer and Capricorn. With the exception of the montane forests of Ethiopia and Kenya, and the highlands of central Africa, nearly all of the forestry projects under USAID's domain fall under the rubric of tropical forestry. Under this heading, however, there is a wide diversity in the extent and nature of Mission projects in the field.

The diversity of the portfolio of USAID investments in tropical forest conservation ranges from national level planning, policy, and infrastructure development projects (e.g., under the Forest Land Use Planning Project in Niger, the Sustainable Approaches for Viable Environmental Management project in Madagascar, and the Action Program for the Environment project in Uganda) to projects dealing with a specific threatened forest area (e.g., the Amber Mountain Conservation and Development project in Madagascar, the Conser-

vation of Northern Forests project in the Congo, and the Management of Korup National Park project in Cameroon).

As is happening in other regions of the tropics, deforestation has become a serious concern in many African nations. Since the turn of the century, more than half of the world's tropical forests have been lost to the pressures of increased population, industrial exploitation, and poor land management practices.

Deforestation threatens the very ability of the land to maintain life. It results in soil erosion and flooding, and often leads to unsustainable agricultural practices. It also has the potential to bring about global climate change and thus affect production patterns and capacities worldwide (see Box on climate change, left). As a major storehouse of carbon, the loss of tropical forests, particularly through burning, contributes significantly to the accumulation of carbon dioxide and other so-called greenhouse gases in the atmosphere. There is growing scientific evidence that

increased quantities of greenhouse gases hold the potential to alter existing rainfall patterns and temperatures, eventualities that could have devastating effects on the business of sustaining life, not only in sub-Saharan Africa but worldwide as well.

One example of how USAID is addressing these problems is the Senegal Reforestation Project, a \$12 million project operating from 1988 to 1993 that had as its objective the encouragement of widespread reforestation efforts throughout Senegal. The project accomplished this through a series of actions including a matching grant program to decrease the financial risks of reforestation through partial reimbursement of costs after a successful tree establishment, elaboration of policy that encouraged popular participation in reforestation activities, training and support of technical agents, and design and implementation of a multimedia campaign that sensitized the rural population to the economic and ecological benefits of reforestation activities.

The developmental community is now fully cognizant that continued deforestation holds the prospects of dire consequences and thus should be brought under control. Unfortunately the factors that contribute to its continuation are often difficult to isolate or remedy. Some of these factors are increased demands for agricultural land to offset declining productivity and generally increasing populations, pressures to meet foreign debt obligations by generating income via timber exports, and domestic fuelwood and building needs, especially in urban areas. All of these contributions to deforestation are enhanced by the pervasive undervaluing of forest products by the national governments, who tend to view trees as exploitable resources free for the taking.

Cognizant of the need to arrest present rates of deforestation, USAID and other donors are presently reassessing program designs that have tropical forestry components in an attempt to bring about the maximum sustainable use of this vital natural resource.

## Biodiversity

Biological diversity is the totality of genes, species, and ecosystems in a region. Throughout Africa, people depend on wild plant and animal resources for food, fuel, fiber, shelter, and medicine. Natural resources are also a source of foreign exchange (for example, timber from West and Central Africa, gum arabic from Sudan, and wildlife-related tourism in East Africa). Sustained biological and genetic diversity provides insurance for the future—important sources of genetic material needed to make improvements in Africa's staple food crops and livestock. But biological diversity continues to be lost in Africa because natural resources are being poorly managed—or not managed at all.

USAID has funded numerous integrated conservation and development projects (ICDPs). ICDPs work to ensure the conservation of biological diversity by reconciling the management of protected areas with the social and economic needs of local people. Since they focus on establishing the conditions for sustainable economic growth in areas surrounding or near protected areas (buffer zones), ICDPs contribute to the achievement of DFA objective 3—developing the potential for long-term increases in productivity.

For many years, USAID has helped the Kenya Wildlife Service to maintain the delicate ecological balance of protected areas, while promoting and realizing the economic benefits from wildlife and tourism. In the southern Africa region (Zambia, Botswana, Namibia, Malawi, and Zimbabwe), USAID funds a regional effort to devolve state control of natural resources, including wildlife, to local communities.

In several protected areas in Burundi, Niger, and The Gambia, the Africa Bureau works closely with the U.S. Peace Corps to promote village-level stewardship of biological resources.

In biodiversity activities, the Africa Bureau collaborates closely with private voluntary organizations, including World Wildlife Fund, Conservation International, the African Wildlife Foundation, Wildlife Conservation International, CARE,

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## ECOTOURISM: OPPORTUNITIES AND CONSTRAINTS

Ecotourism is the fastest growing segment of the \$2 trillion tourism and travel industry. Though ecotourism has been prominent in Africa for years, especially in East Africa, its recent popularity boom effectively redefines the concept for major portions of sub-Saharan Africa blessed with the natural splendor and wildlife that tourists are increasingly willing to invest substantial financial resources to see.

The prospects of using "environmentally clean" tourist revenues to help fill depressed national coffers is an attractive one for those nations positioned to provide the access, comfort, and travel experience that wildlife tourists seek. In theory, a successful ecotourism program contributes directly to the achieving of USAID goals in biodiversity, natural resources conservation, and private sector development.

Constraints to successful (and profitable) ecotourism ventures are many, however: high start-up costs and infrastructural improvements that might in themselves be environmentally destructive; the recurring costs of promotional investments; uncertain political situations in host countries, which could end up discouraging travelers; and the competitive and uncertain nature of the travel industry, especially in times of economic downturns in the developed countries that supply the overwhelming majority of ecotourists.

If improperly managed, ecotourism poses the threat of ultimately destroying the resources base that it is intended to help preserve. Additional threats come from the disruption of local communities, both culturally and economically, and from the tendency of profits to congregate in the hands of organizers and enablers, not those at the community level who are the USAID-targeted beneficiaries.

In recognition of the short- and long-term benefits that ecotourism can provide, the Africa Bureau has renewed its interest in the concept of ecotourism. Because of the potential contributions that ecotourism can make to the attaining of DFA goals, USAID's interest centers on providing increased protection for unique natural resources areas (e.g., parks, reserves), income opportunities for local communities, and private sector investment opportunities.

As an initial effort, the Bureau funded two ecotourism studies: (1) *Low Impact Tourism as a*

*Strategy for Sustaining Natural and Cultural Resource Conservation in Sub-Saharan Africa* and (2) *Guidelines to USAID Missions in Private Sector, Nature-Based Tourism Development*. Initial results indicate considerable interest in the area for both the business and conservation community.

The preliminary work on these studies has contributed to the incorporation of ecotourism into Botswana's natural resources management planning process. A USAID-funded study in Uganda focuses on the feasibility of sport hunting in the northwest mountains in addition to further funding of the national park system, which attracts 95 percent of that country's foreign tourists. In Kenya, the Conservation of Biodiverse Resource Areas (COBRA) project will make similar contributions to the Kenya Wildlife Service's conservation and ecotourism work.

A recent overview document, *Ecotourism: A Viable Alternative for Sustainable Development of Natural Resources in Africa*, describes the history and current status of ecotourism in Africa, defines the potential for collaboration between the travel industry, donors, governments, and private conservation and development organizations, and provides planning guidance and policy and strategic recommendations.



*Ecotourism and the availability of forest products provide small-scale rural marketing opportunities for cottage industries, such as the pots, jewelry, and other crafts sold by this women in a village near Ranomafana National Park in Madagascar. (Photo by Greg Booth)*

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## THE AFRICAN ELEPHANT

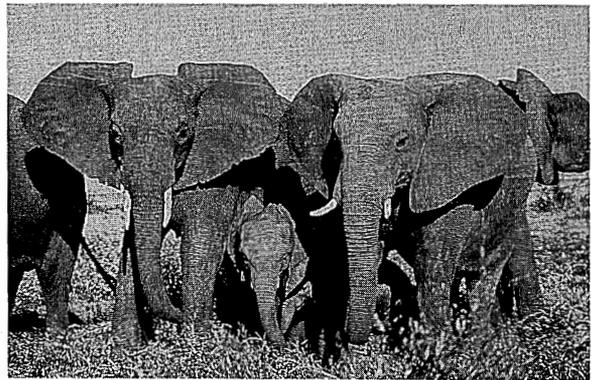
The Africa Bureau's elephant conservation activities focus on the wide development issues surrounding elephant conservation—specifically, the rational management of critical habitats for biodiversity, including elephants, and providing rural populations surrounding these critical habitats with sustainable development alternatives.

USAID has contributed to the rescue of the African elephant. Commercial trade in ivory has been eliminated and markets destroyed. Poaching pressure is significantly down. Populations are on the increase. Critical habitats are protected and being rehabilitated. The African elephant conservation situation has moved from relief to rehabilitation.

Major previously funded activities are active in Botswana, Tanzania, and Zambia. In FY 1991 programs amounting to over \$5 million were funded. These included major programs in the Congo, Ghana, and Uganda and smaller scale activities that are underway regionally through the African Wildlife Foundation and in Rwanda, Niger, and Cameroon. There have been similar levels of funding in FY 1992 and 1993. In addition to continuing projects in the above countries, new activities were started in Kenya and Namibia, as was an expansion in Botswana. In 1994, new activities are anticipated in Cameroon and Côte d'Ivoire.

USAID coordinates its elephant conservation program with other U.S. Government agencies—for example, the U.S. Department of State, U.S. Department of Agriculture, U.S. Department

of the Interior Fish and Wildlife Service (FWS), and the Peace Corps—through an Interagency Advisory Committee on the African Elephant. The Africa Bureau also coordinates directly with FWS, which has established an African Elephant Conservation Grant program that was appropriated \$770,000 in FY 1991 and \$1,000,000 in FY 1992 and 1993. This USAID/FWS partnership included the cosponsorship of a "Conference of African Elephant Range States and the Donor Community."



*USAID is working in coordination with other U.S. Government agencies and conservation organizations to help ensure the maintenance of viable African elephant populations. (Photo by Rick Weyerhaeuser / WWF)*

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PACT, and World Learning.

USAID also supports basic research on critical endangered species and their habitats. A grant to the World Wide Fund for Nature supports ecosystems research in Congo, while a grant to Wildlife Conservation International supports research on the forest elephant and tropical forest ecosystem dynamics in Korup National Park in Cameroon.

Biodiversity conservation and sustainable development in Africa are closely linked. Successful

biodiversity conservation in Africa will require attention to all landscapes and ecosystems, rather than a focus on the protected area system. This will involve identifying techniques, both traditional and modern, for placing the use of all biological resources on a more sustainable basis. It will require incentives for African peoples to invest in, participate with, manage, and benefit from a wider range of conservation initiatives.

# Getting the Conditions Right for Sustainable Development

## *Country Examples*

A major thrust under the Development Fund for Africa and the Plan for Supporting Natural Resources Management in Sub-Saharan Africa is to help put in place those conditions (for example, supportive laws on land tenure, availability of credit and technology, better valuation of resources) that encourage better management of the natural resources base in the pursuit of greater prosperity.

Various “conditions” have contributed to the diffusion of appropriate practices. Below is a discussion of these conditions and of examples of progress made by various Missions in the establishment of those conditions. Following these are additional examples of Missions that have designed programs aimed at establishing appropriate conditions. It is by no means an exhaustive list. These are best seen as starting premises for programs, not as immutable building blocks.

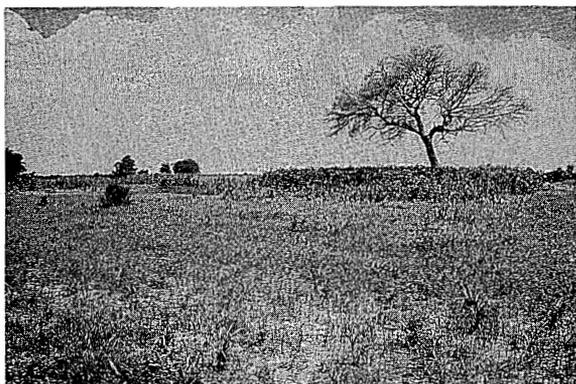
Conditions also change over time. Vibrant, risk-taking management structures may stagnate; incentives that do not change or change too rapidly to external pressures may lead to overadjustments. In addition, key conditions that appear to work well in one location may be ineffective or counterproductive elsewhere. For example, in Lesotho the Mission decided to support their community-by-community approach by putting in place key na-

tionwide conditions—in this instance, the imposition of grazing fees—following on some of the experience of the Niger Mission. However, it is not clear that grazing fees are indeed a positive influence to long-term improved range management, and clearly they are not easy or quick to implement.

### **The Right Conditions: Some Examples**

#### *Secure Use Rights to Products of Better Management*

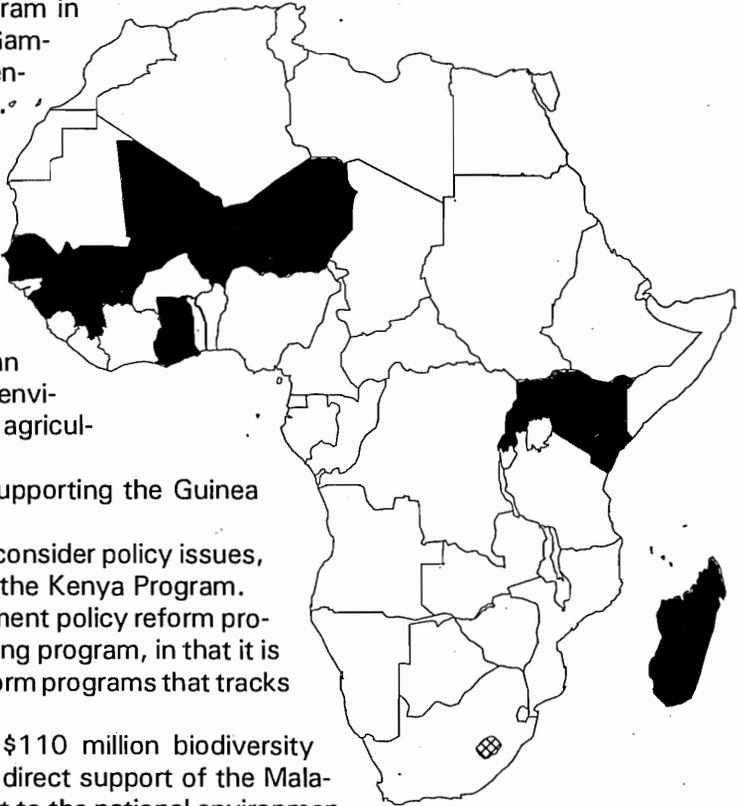
It is axiomatic that farmers, herders, or woodcutters are more likely to better husband the natural resources base if they are confident that the fruits of their labor will return to them or their heirs rather than to others. Stating this “truism” is much easier than demonstrating its feasibility. In numerous cases, the management of common property resources has been based more on first-come, first-served, rather than on a coherent, sustained-yield plan, and the outcomes of such cases are predictable. Less common are the cases where a former common property has been reclaimed by local resource users. But, these cases of local commitment to sustainable management are instructive. In each case, resource tenure has been a factor, either



*Forest Code changes in Niger and Senegal are expected to contribute to the extension of agroforestry practices such as establishing Acacia albida trees in grain fields. Given the long-term nature of investing in soil productivity, secure land tenure is essential for the extension of such practices. (Photo by Mike McGahuey)*

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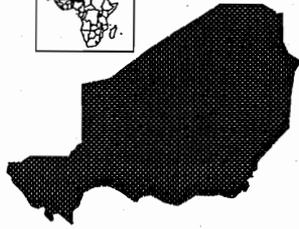
## USAID SUPPORT FOR NATURAL RESOURCES POLICY

<b>The Gambia</b>	New policy reform program in place supporting the Gambian National Environmental Action Plan (NEAP). Also provides funds for PVOs to assist villages in developing resource use agreements.	
<b>Ghana</b>	Support being given to the Environmental Commission, secretariat for the Ghanaian NEAP, on monitoring environmental impacts of agricultural policy.	
<b>Guinea</b>	New project in place, supporting the Guinea NEAP.	
<b>Kenya</b>	Project on wildlife. May consider policy issues, depending on status of the Kenya Program.	
<b>Lesotho</b>	Existing Range Management policy reform program. This is an interesting program, in that it is one of the few policy reform programs that tracks biophysical indicators.	
<b>Madagascar</b>	Of the Mission's total \$110 million biodiversity portfolio, most funds in direct support of the Malagasy NEAP, with support to the national environmental planning office, policy reforms, and PVO grants program.	
<b>Mali</b>	Considering activities modeled on Niger example (below).	
<b>Niger</b>	Existing policy reform program. Includes assistance to reform Forest Code and other laws affecting technology adoption, as well as allocation of funds for PVO and local community activities.	
<b>Rwanda</b>	Environmental Policy Advisor in support of the Rwandan NEAP.	
<b>Senegal</b>	Major portfolio on sustainable agriculture. Working with Government of Senegal on policy issues, and considering new policy reform program.	
<b>Uganda</b>	Program supporting the development of an Ugandan NEAP, including policy reform, institutional strengthening, and PVO programs.	

by law or by fact.

In the case of the Guesselbodi Woodcutter's Association in Niger (see Box, page 32), a special agreement was signed between the President of the Association and the Minister of Agriculture granting use rights to the Guesselbodi National Forest as long as the management plan was followed. This was the initial case in Niger for use rights for forest resources to be specifically assigned to a local

community. Significantly, the user right was accompanied by responsibility to follow a management plan. Since that agreement, which was brokered by USAID/Niger, two other major breakthroughs have occurred under Mission programs. The first was a decree published in the national press allowing any community with an approved management plan to manage their woodlands. The second was the revision of the Rural Code in



## LOCAL IMPACTS

### *The Niger Example*

Before the USAID Forest Land Use Planning Project was initiated in 1980, the Guesselbodi National Forest, 35 kilometers from Niamey, was a degraded site, dominated by overgrazed scrub brush, eroded soil, and rocky outcrops. Today, small trees, brush, and grass grow over much of the nearly 5,000 hectares, and some plant species that disappeared 30 years ago are returning.

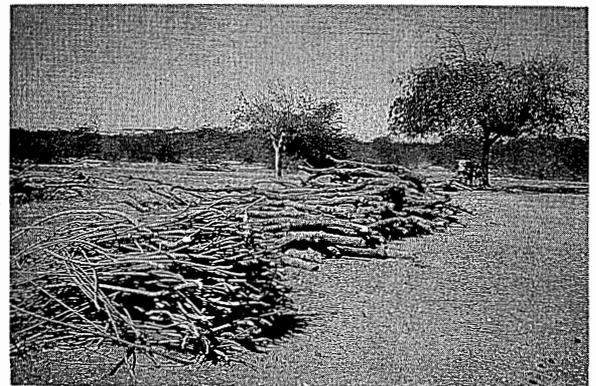
This USAID project introduced the concept of community-based natural forest management. After conducting detailed surveys and consulting with local villagers, the FLUP project instituted a low-cost management system to encourage regeneration of the natural forest and permit restricted woodcutting and other use by residents of neighboring villages. A local Woodcutters' Association was formed to share management of the forest. To enable the members of the Woodcutters' Association to capitalize on the enterprise, USAID supported CLUSA (Cooperative League of the USA) in providing members with training in enterprise management. In 1987, USAID facilitated the development of an agreement between the Woodcutters' Association and the Government of Niger that gave the Association exclusive use rights to the Guesselbodi Forest. In return, the Association accepted the responsibility of following the management plan. Finally, the Forest Land Use Planning Project helped develop an arrangement that reduced the taxes paid on the wood sold by the Association. In return, the Association agreed to tax the wood sold in order to pay the Guesselbodi Forest management costs.

Since 1987, members of the Woodcutters' Association have harvested wood and forage under a sustained-management plan. In 1991, more than 65 woodcutters and 128 forage harvesters increased their income by harvesting and selling forest resources.

The clear increase in direct benefits to the woodcutters is setting an example for the rest of the country. In 1982, there were no beneficiaries from community-based natural forest management in Niger. By 1986, 1,500 hectares were

under management at Guesselbodi, and the revenue was \$14,000. Subsequently, community-based natural forest management spread to other areas in Niger, and by 1991, 33,250 hectares were under management, generating about \$80,000 annually. In 1992, natural forest lands under community management increased to over 56,000 hectares.

Over the last four years, USAID has worked with the Government of Niger on the development of a Rural Code that would provide tenure incentives to communities. As a consequence, a new Rural Code was approved in December 1992. This code is expected to contribute to substantial increases in natural forest management. The impact of the USAID project in Niger demonstrates that Sahelian natural resources can respond profitably to management and that higher productivity can be achieved without the introduction of exotic species.



*Natural forest management yields sustainable harvests of wood and forage on previously abandoned land. On over 56,000 hectares of land in Niger, land that was once marginally productive is now being managed by communities to yield sustainable harvests of wood and forage. USAID/Niger's Forest Land Use Planning Project pioneered natural forest management technology. It also broke critical ground in securing use rights to forestland for communities and providing enterprise-management training. (Photo by Mike McGahuey)*

December 1992. This change was the culmination of a process initiated in the mid-1980s for which the Mission provided both financial and intellectual leadership.

USAID Missions in Mali and Senegal have also been instrumental in the establishment of more effective resource tenure conditions. In Mali, the national debate on the tenure question has been significantly informed by the Land Tenure Center's (LTC's) Mission-supported field work. Although the new codes have not yet been passed, there are already examples where rural communities have taken control of the management of their forest and range resources. In Senegal, the Mission has supported the LTC in the development of a new Forestry Code. The new code is aimed at increasing the incentives for more responsible, as well as economically sound, management of forestry and range resources.

In Lesotho, the Mission has been involved over the last decade in working with local communities to set up grazing associations. These associations, designed to promote improved range management practices, are driven primarily by the initial identification and demarcation of range management areas, providing association members with an increased level of security over their use of public lands.

#### *Community-Based Organizations with Skills and Confidence in Managing NRM-Based Enterprises*

In numerous cases where local progress has been achieved in the adoption of appropriate natural resources management practices, the adoption has been accompanied by increases in skill and confidence in managing NRM-based enterprises. In the Development of the Haute Vallee (DHV) Project zone in Mali, where an estimated 8,000 producers have adopted at least one appropriate technology, the Cooperative League of the USA's (CLUSA's) Mission-supported program has helped several village associations gain access to credit through the development of enterprise management skills. Over the last few years, the amount of credit

negotiated between those village associations and private banks in Mali has grown from \$300,000 to nearly two million dollars. The repayment rate is above 95 percent. Most of these loans are agriculture related and used for such things as agricultural implements and inputs such as fertilizer and pesticides.

USAID assistance through the DHV project has developed village capability to initiate economic activities and operate within modern banking institutions. Beginning in 1985, USAID initiated training for rural residents, made group loans to village associations, and documented repayment records. These records dispelled the traditional view that rural residents are poor credit risks and persuaded commercial banks to make group loans to village associations for local enterprises. Loans have been used for the establishment of village stores and pharmacies; the transport, storing, and processing of grains; the purchase of agricultural inputs wholesale; and other local activities. These village associations apply directly to commercial banks for unsubsidized credit and negotiate terms themselves—a radical change from lending practices of the past. Residents of more than 165 village associations have received training through CLUSA under the USAID project. As a result, they are developing economic activities with renewed confidence in their ability to influence their own future.

As another example, the Guesselbodi Woodcutters Association in Niger received training from CLUSA in managing the fuelwood enterprise. The skills and confidence gained in this training have been critical in making enterprise decisions at the community level, in dealing with the government and private traders, and in securing credit. The credit was used to purchase carts that increased the effectiveness in harvesting and transporting wood. Strengthening local cooperatives in Niger involved more than providing competent training; it also involved a policy change. Prior to the Mission support of CLUSA, only State-sponsored cooperatives were recognized as legal, and there were restrictions on the type of enterprises that they could undertake. Fortunately, the Mission was able

to demonstrate by example that cooperatives, unfettered by restrictive laws, can help the economy grow.

Grazing associations in Lesotho were given training in administrative and financial management. USAID did not prescribe a certain strategy for these associations to follow in terms of membership, exclusivity, or membership fees or fines, and there has been considerable local variation. This has permitted these associations to develop organically around the strengths and weaknesses of their respective communities.

### *First-Hand Knowledge of NRM Options*

In the "old days," projects supported the establishment of an agricultural extension service that "prescribed" the solutions to farmers' problems. The farmers' judgments often were not a factor. In contrast, USAID Missions and private voluntary organizations are showing the rest of the development community that resources managers are more likely to adopt appropriate practices if they can make informed decisions based on first-hand knowledge of an array of options. In Mali, for example, the Mission's DHV Project supports farm days and site-to-site visits. Many of the farm days are hosted by farmers; in 1992, over 3,000 farmers attended these. Examples of technologies spread by site visits include contour berms for soil erosion, compost pits, agroforestry, windbreaks, pole plantations, vegetation strips, improved management of crop residue to build soil, and use of forage legumes as a crop rotation.

### *Timely and Competent Technical Assistance*

It is one thing to learn about new practices; it often is quite another thing to apply them, especially if they involve new techniques such as the application of judicious quantities of fertilizer at the right time and place. In Niger, the USAID Mission has made considerable progress in orienting that country's forestry service toward an outreach instead of a policing role. The development and implementation of community-based natural forest manage-

ment in Guesselbodi changed the role of forestry service personnel. Before the USAID project, they were policemen, matching wills and wits with both local and transhumant populations. Through community-based planning, they became partners in development and agents of technical assistance. Now, they are able to leverage the willingness and energies of the local population in responsible management of the forest resources. As a result, both the forest and the people benefit, and the Government of Niger has fewer expenses and potentially greater sources of revenue.

In The Gambia, technicians trained under the USAID Soil and Water Management Project provided critical assistance to the farmers in planning and laying out structures that would allow freshwater to prevent saltwater from infiltrating into the ricefields.

### *Available Appropriate Technologies*

The availability of suitable technologies and methods is critical for improved natural resources management. Technologies are adapted and shared between farmers and between countries. Some of the technologies evolve spontaneously, and some evolve through support from donors such as USAID. In Mali, farmers participating in the Village Reforestation Project have made important progress in the husbandry of tree pole plantations. The development of crop rotations and crop residue management in the DHV Project in Mali have substantially increased soil productivity and decreased erosion. And, in an earlier project in Mali, USAID-supported technicians showed how the feed efficiency of sorghum and millet stover could be enriched by the addition of molasses and urea. This technology is only now becoming widespread, even though the project under which it was developed is long completed.

In Niger, a whole set of new practices were developed by the Mission's Forest Land Use Planning Project for management of natural forests at Guesselbodi. Up until this project in the early 1980s, most forestry research involved faster-growing exotics established in enclosed planta-

tions. The project pioneered the management of naturally occurring trees and brush as the basis of an enterprise. In the wake of the development of viable technologies at Guesselbodi, numerous other sites have been established.

In The Gambia, over a 15-year period the Mission supported the Soil and Water Management Project, which developed technologies to help rice farmers desalinate tidal lands. The Mission also funded the development of a technical support unit within the Government to assist in the design, construction, and maintenance of other such systems as the technology spread throughout the country.

In Lesotho, the Mission promoted a variety of improved technical and management approaches, including rotational grazing, breed improvement, and herd management, all designed to meet the financial and human resources constraints affecting the country's herders.

### **Working to Establish the Right Conditions: Policy Reform and Nonproject Assistance**

Most of the major bilateral NRM initiatives in Africa include a component related to the reform of policies—in many instances, in the context of a conditionality-linked sector grant. In few instances, nonproject assistance (NPA) represents the dominant component of a policy reform intervention by USAID Missions; often, this assistance was a portion of a larger package consisting of technical assistance, training, and PVO grants. It is usually not sufficient just to free up a market, or to “get the price right,” since the optimization of short-term prices will not, by itself, necessarily optimize the use of the resource over time.

NPA programs are not necessarily easier to manage than direct technical assistance. In fact, NPA programs often require significant amounts of senior staff time. This requirement is particularly true for NRM programs, where the issues are often complex and intersectoral.

NPAs that can build on Mission experience, and where USAID is perceived to have a compara-

tive advantage, tend to be most effective to design and implement. Those that are also built on local knowledge may have the most opportunity for success.

Although the natural resources sector presents some difficult analytical challenges, USAID, the World Bank and the Food and Agriculture Organization have been involved in a series of activities and processes that provide the underpinning for policy reform in many of the countries in Africa. The National Environmental Action Plan process of the World Bank has played a key role in some countries in identifying and supporting policy dialogue in natural resources (see Box on NEAPs, page 36).

Most NPAs so far have focused on the improvement of incentives that promote local management of resources (see Box on Niger ASDG, page 37). As in the case of Madagascar, it is not yet clear that local governance and economic self-interest alone will be sufficient to address the long-term objective of the activity—the sustainability of the country's biodiversity. The linkage between local incentives and overall objectives for activities involved with sustainable agriculture, however, seems to be more feasible.

Compared with other sectoral issues, NPAs related to NRM tend to be much longer term. In Madagascar's case, for instance, Knowledge and



*Lands at Guesselbodi National Forest have begun to regenerate as a result of the efforts of USAID/Niger's Forest Land Use Planning Project. (Photo by Mike McGahuey)*

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## NATIONAL ENVIRONMENTAL ACTION PLANS

National Environmental Action Plans (NEAPs) are the primary multidonor mechanism developed to structure and manage environmental programs. The initial concept evolved from the Malagasy government and interested NGOs, who wished to see a more participatory, longer-term approach taken to environmental planning and policy. World Bank-supported NEAPs in Rwanda, Madagascar, and Uganda have been instrumental in organizing and focusing donor support in the environmental and natural resources sectors. Developed partially in response to the perceived limitations of the Tropical Forestry Action Plan (TFAP) approach, the NEAPs emphasize consensus building and participation between all relevant actors, including governments, communities and individuals, PVOs, and donors. The advantage of NEAPs, when they are properly prepared, is that they provide host governments and donors with a strong prioritized planning framework in the environment and natural resources sector, rather than simply a top-down wish list of unsustainable public-sector projects. However, accomplishing this is not easy and, if done hurriedly, can be highly counterproductive.

The advantage of NEAPs for USAID is that they provide a solid multidonor strategic environment—in many instances, with much longer time horizons than are available to USAID Missions in terms of their normal planning horizon.

As of 1992, the World Bank directed that all International Development Association (IDA) countries be required to prepare a NEAP by mid-1993 to qualify for further credits. While this directive has been an important stimulus for environmental planning in Africa, there is a risk that this requirement will have a negative impact on the quality of the NEAPs since the tight timeframe may force a more top-down approach to their completion. (For example, Madagascar's initial plan took nearly three years to complete; Rwanda's even longer.) A good NEAP can be quite helpful to USAID Missions by providing, in effect, a multidonor long-term strategic national plan that can then be drawn upon in designing and justifying

interventions. A bad NEAP, on the other hand, can constrain the effectiveness of USAID's investments in the environment.

To support this process and improve the quality of NEAPs and other policy programs, USAID has been supporting two initiatives:

- *The Policy Consultative Group (PCG)*, organized and managed by the World Resources Institute. The PCG is designed to provide USAID Missions, NGOs, host countries, and other donors with an independent platform for peer review and crosscutting analysis on a variety of issues related to natural resources policy in Africa. One of the subgroups of the PCG is focused on the NEAPs, building on WRI's considerable experience in analyzing the design, monitoring, and implementation of NEAPs in Africa.
- *The Multi-Donor Secretariat (MDS)*, housed within the World Bank. The MDS was originally created as part of the Madagascar Environment Program. Starting from a presentation made by the MDS in one of the Regional Facility for the Environment (RFE) workshops concerning the Madagascar Environment Program and the role of the MDS in donor coordination, several countries—Rwanda, Burundi, Benin, Burkina Faso, Ghana, Côte d'Ivoire, Congo and Gambia—asked the MDS to begin working in their countries.

The expansion of the MDS to other countries was also of interest to the donor community, particularly those at the forefront of environmental and NRM work in Africa—namely, USAID and the World Bank, as well as the French and German bilaterals. For USAID, it provided the country Missions with a source of advice and knowledge on the NEAP process in general and, more specifically, on the need for focused support to the national teams preparing the NEAPs. It also has helped—and is helping—USAID to link its country efforts more closely with those of other donors also active in environment in specific countries.

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## SAMPLE CONDITIONS

### *The Niger Agricultural Development Sector Grant*



USAID/Niger aims to focus its efforts on assisting the Government of Niger (GON) to establish conditions that increase the incentives for smallholders to change their behavior with respect to man-

aging soils and vegetation.

The Mission in Niamey chose to pursue the realization of these program objectives through nonproject assistance (NPA) programming. The selection of NPA over project assistance was based on the Mission's experience in policy reform, which had demonstrated that sectoral reform programs are best supported through the provision of resources in increments released on satisfaction of conditionality.

Some project assistance is programmed to accompany the NPA to allow provision of technical assistance, training, and studies in support of the program. ASDG (Agriculture Sector Development Grant) II thus combines sectoral assistance (dollar transfers) tied to policy reform, and a technical assistance, training, and studies com-

ponent that focuses both on policy and institutional reform.

USAID has found NPA particularly advantageous in dealing with problems that extend beyond a single ministry's mandate. Coordination of ASDG I, for example, has involved some five ministries. NPA is an especially appropriate way to deal with NRM issues, which concern an array of institutions in Niger.

A strong empirical base facilitated the development of the legal and policy framework in the ASDG I and II conditions precedent (CP). That empirical base consisted of extensive and varied analyses of field experiences where NRM practices had been improved. Four specific CPs relate to improved NRM practices:

- further elaboration and implementation of rural code favoring NRM investments;
- further decentralization with respect to encouraging NRM investments;
- institutional reforms that favor NRM investments; and
- harmonization of various national NRM plans (in conjunction with other donors).

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Effective Policies for Environmental Management, a five-year program, is in itself only the first phase of a much longer reform program (see Box, page 38). This reflects both the nature of NRM issues (for example, the long-time frame of impact) as well as the evident importance of structural and institutional reform.

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## SAMPLE CONDITIONS

### *The Madagascar Policy Program*



The purpose of the Malagasy KEAPEM (Knowledge and Effective Policies for Environmental Management) program is to improve public policy to make biological diversity management and protection sustain-

able by mobilizing resources, strengthening public institutions, and stimulating local initiatives. These reforms are needed to address long-term sustainable protection of Madagascar's natural resources. To achieve this objective, the program supports the identification and implementation of policy, administrative, and institutional reforms to promote the conservation of biodiversity in Madagascar based on the assumption that this cannot be done in isolation of the development needs of the Malagasy people.

Illustrative policy reforms being considered for support under the program include:

1. Strengthening the capacity of the National Office of the Environment (ONE) to develop environmental policy and translate policy into action:
  - a) identification and definition of the roles of the actors involved in the environmental policy formulation process by ONE;
  - b) definition of the coordinating, operating, information management, and implementation/evaluation roles of all institutions under the Environmental Charter by ONE;
  - c) development and implementation of a work plan for ONE for National Environmental Action Plan impact evaluation, showing revised policy changes as a result of impact analysis; and
  - d) development and implementation of a standard environmental review process, beginning with high-priority environmentally sensitive areas.
2. Facilitating local-level natural resources management (NRM) initiatives:
  - a) strengthening of legislation-based incentives for local natural resources users to govern and manage those resources on a sustained-yield basis, based on a series of assessments at pilot sites;
  - b) strengthening of the provision of timely, appropriate, and supportive technical information and resource transfer to local natural resources users;
  - c) removal of legal barriers hindering the effective participation of local associations and nongovernmental organizations (NGOs) as partners in the management of natural resources by facilitating the creation of local associations, allowing NGOs to receive direct gifts and bequests, and permitting the NGO community to create endowment funds; and
  - d) establishment of a National Environmental Trust Fund as an endowment to encourage and facilitate NRM initiatives.
3. Natural resources revenue generation, expenditure, and resource pricing:
  - a) establishment of a national schedule of revised stumpage fees for all classes and categories of wood products to reflect current market prices and replacement costs, so as to promote efficient use of forest resources and to generate investment funds for sustaining and expanding the forest resources base;
  - b) establishment of an improved system for stumpage fee collection;
  - c) determination of a fixed percentage of the National Forestry Fund to be invested in the protection and maintenance of natural forests;
  - d) initiation of management plans for natural forests under exploitation;
  - e) establishment of a single-service window for tourism development information, promotion, and coordination;
  - f) establishment of a hotel tariff to finance the maintenance and protection of tourism regions, with a percentage earmarked for the unrestricted budgets of adjacent communities (*fokontany*); and
  - g) investment of protected area entry and use fees in protected area maintenance.

# Conclusion

Africa is in transition. Its future has never been as uncertain, and as full of opportunities, as it is now. The inexorable dynamics of population growth, the uncertainties of the post-Cold War world, the reawakening of ethnic conflicts, and the continued stagnation of much of the continent's formal economy does not bode well for the future generations of Africans. Yet this transition also brings fresh new approaches: opening up of political and economic opportunities, changing of the political makeup of much of the continent, and the beginnings of a more outward-directed, market-oriented economy all are positive signs.

Africa's future is very much connected to the well-being and stewardship of its natural resources. The continent's resources base is the foundation for much of Africa's wealth. Sustainable development in Africa will depend in large part on the wise use of natural resources. The conditions for sustained growth—a more open economy and polity, improved tenure, improved technologies, and better planning at the local, national, and international levels—are becoming more common in Africa.

Whether or not Africans, and donors, can foster and sustain these opportunities remains as the major challenge over the next decade.

Growth in incomes for Africans is essential, but African growth will need to be flexible and adaptive to change and variability—climatic, political, and economic. For Africa, sustainable development implies flexible growth—growth that is robust and able to deal with uncertainty, risk, and variability. Most important, this growth must increasingly view the underlying resources base more as one of the continent's most important capital assets rather than a source of short-term income.

USAID is in a unique position to support this transition towards sustainable development. In the natural resources management sector, USAID has allocated substantial amounts of funds in a manner that is inherently long term in nature and designed to permit countries to grow flexibly. This approach supports a long-term view toward natural resources management and offers the type of opportunities Africa needs.