

PA-ARF-955
15th 68037

ALTERNATIVES TO NATURAL RESOURCES PROGRAMMING:
USAID/KENYA

Kjell A. Christophersen, Team Leader, E/DI
Thomas M. Catterson, Associates in Rural Development
Ernest D. Ables, Development Alternatives, Inc.
Ratemo W. Michieka, University of Nairobi

June 1989

Natural Resource Management Support Project
(AID Project No. 698-0467)

Contract No. AFR-0467-C-00-8054-00

Prime Contractor:

E/DI
1400 I St. N.W., Suite
700, Washington D.C., 20005

Principal Subcontractor:

Development Alternatives, Inc.
624 Ninth St., N.W., Sixth
Floor, Washington D.C., 20001

TABLE OF CONTENTS

SECTION	PAGE
1. INTRODUCTION	1
2. ALTERNATIVES TO NATURAL RESOURCES PLANNING	1
2.1 Introduction	1
2.2 The Mission Portfolio	1
2.3 Integrating NRM in Mission Portfolio	3
3. THE FUTURE PORTFOLIO	3
3.1 Introduction	3
3.2 Recommendations for Immediate Funding of Proposals Already Submitted: The Short Term Portfolio	4
3.2.1 AFRENA	4
3.2.2 Economic Value of Wildlife Proposal	6
3.2.3 Kenya Conservation Trust	7
3.3 Possible New Starts: The Long Term Portfolio	7
3.3.1 Prioritization	8
3.3.2 Current Portfolio	9

1. INTRODUCTION

This report, accompanying the Action Program, identifies the portions of the Action Program that could be absorbed through a refocusing of USAID/Kenya's current portfolio or through any new projects as deemed necessary. The report is specific to USAID/Kenya. The immediate concern for the Mission is that NRM priorities are integrated into the new CDSS to reflect support of A.I.D.'s goals of balanced resource protection, restoration and enhanced use of the soil, water, vegetation and genetic components of the natural resource base in Kenya.

2. ALTERNATIVES TO NATURAL RESOURCES PLANNING

2.1 Introduction

The Mission portfolio can support NRM activities in several ways: a) including new initiatives in its upcoming CDSS; b) refocusing existing projects by incrementally adding a NRM focus; c) buy-ins through the AFR/TR/ANR NRMS and S & T biodiversity projects; and d) collaborating with multilateral donors (eg., World Bank, FAO, African Development Bank, etc.). The several alternatives to natural resources planning presented in this report and the Action Program represent the team's recommendations for consideration by USAID/Kenya and suggests specific vehicles through which it can be attained.

2.2 The Mission Portfolio

Table 2.1 summarizes USAID/Kenya's current portfolio and proposed fiscal year 1990 (FY90) obligations (ABS, 1988). It also shows the team's estimate of how much of the portfolio -- projects or components of projects -- can reasonably be labeled NRM. According to the African Development Fund (ADF) guidelines, A.I.D. should earmark approximately 10 percent of its annual obligations in natural resources. Individual Mission levels may be higher or lower. In general, it is expected, although not mandated, that Group 1 and 2 countries will meet the 10-percent target.

The process of determining how much of the portfolio is NRM is largely judgmental. For example, support for the development of drought resistant grain species varieties would not be counted. Support for training in water harvesting techniques, etc. would be counted. Efforts in population control, although essential to natural resources, will generally not be given credit as contributing towards towards the 10 percent NRM rule-of-thumb goal. Table 2.1 is based on planned FY90 obligations (or FY89 obligations if the FY90 information is not available) in accordance with the ADF guidelines. Of these planned obligations, the percentages and dollar amounts given in the 4th and 5th columns of the table represent the credit given toward the rule-of-thumb that 10 percent or more of Mission portfolios should be spent on NRM activities.

Table 2.1 Projects in Mission Portfolio, FY 1989

Project Number	Title	FY'89 or '90 OYB ('000)	% Attrib. to NRM	\$
0190	On-Farm Grain Storage	3,800	0%	0
0220	Rural Private Enterprise Dev.	296	0%	0
0229	National Agricultural Research	1,309	40%	524
0232	Family Planning Services and Support	7,254	0%	0
0234	Training for Development	1,000	0%	0
0236	PVO Co-Financing	2,000	8%	164
0238	Private Enterprise Development	7,096	0%	0
0239	Institutional Dev. for Ag. Training	385	30%	116
0241	Corat Child Survival & Fam. Planning	300	0%	0
0242	Kenya Market Development Program	2,000	0%	0
0243	Program for Econ. Stab. & Sect. Adj.	7,000	0%	0
0510	Program Development and Support	1,660	0%	0
Buy-in	Human Resources Dev. Assist.	250	0%	0
Buy-in	Family Health Initiatives II	400	0%	0
Buy-in	Natural Resources Management	80	100%	80
TOTAL		\$34,830	2.5%	883

Note: The table does not include the Structural Adjustment Grant II project nor the Sector Program for Market Development

All of the percentage figures used in the table are taken from the Sector Attribution analysis already performed for the Mission, with the exception of the Institutional Development for Agricultural Training project (615-0239). In the Sector Attribution analysis, this project was not given any credit for contributing towards NRM in Kenya. We recommend a 30-percent credit be given to this project to reflect USAID/Kenya's support to the natural resource department at Egerton University. The 30-percent choice is not based on any detailed estimation of the portion of the project actually devoted to NRM. The choice is arbitrary but intended to flag the importance of the support given to Egerton University.

Given the information in Table 2.1, approximately 2.5 percent of the Mission portfolio qualify in the NRM category. FY90 planned obligations therefore fall short of the Agency's 10-percent guideline (although individual Missions are not mandated to meet this requirement), despite the additional credit toward NRM through the Agricultural Training project.

The team recognizes, however, that the Family Planning Services and Support project (615-0232) is closely related to natural resources management and some contribution toward NRM may be warranted. Without population control, no NRM effort aimed at

sustainable management of the natural resource base will succeed. If, for example, 15 percent of the Family Planning Project FY90 obligation were allocated to NRM, the total portfolio percentage attributable to NRM would increase from 2.5 to 5.7 percent.

2.3 Integrating NRM in Mission Portfolio

It is obvious that there is considerable opportunity for USAID/Kenya to increase its support to NRM substantially. Kenya is highly visible with respect to natural resources and any major donor with minimal or no involvement in this area is vulnerable to criticism in the media. Logistically and administratively, USAID/Kenya can opt for the creation of a new office, staffed with new direct hires, with the responsibility of overseeing all NRM activities, coordinate with other donors and stay abreast of NRM developments in the country. Or, a second alternative is to create the NRM office by drawing from the other sectoral offices in the Mission. This could be accomplished by reorganization rather than adding new staff. A third, less attractive alternative, would be to manage NRM activities within the several sector programs as needed without formally creating a NRM office.

The Mission has indicated that it prefers to retain the basic focus of its portfolio -- Health and Population, Private Sector Development, Human Resources Development and Agriculture -- but does not rule out new projects or adding new components to existing projects within this focus. Given this constraint, the first (and recommended) alternative may be less realistic than the second alternative -- opting to create the NRM office from within. In this case, however, the impact on management burden may be significant. The present staff is currently fully occupied and any additional tasks may serve to dilute the attention paid to the present portfolio. The third alternative is discouraged for the following several reasons:

- o Natural resources are an extremely important component of Kenya's economy, and resource based tourism is the number one source of foreign exchange income;

- o Conservation of natural resources is mandated as a component of all USAID development activities;

- o Efficiency of operations is best achieved through an office, section or person with primary responsibility of that specific task.

3. THE FUTURE PORTFOLIO

3.1 Introduction

USAID/Kenya's future portfolio should reflect a much stronger commitment to NRM. For the immediate future, the team recommends that the Mission fund several of the current proposals (or concept papers) discussed below, through the PVO Co-Financing Project. Of the \$1 million dollars anticipated allocation to NRM of the total

\$12 million in the project, only \$150,000 have been obligated to date.

The Mission has an excellent opportunity to increase its support to NRM in the immediate future through the PVO Co-Financing Project. The \$1 million NRM earmark is only a suggested amount; it can be increased if warranted. We recommend that the NRM earmark in the Co-Financing Project be so increased, substantially past the 10-percent rule-of-thumb guideline. It should also be made possible, in the Co-Financing project, to include international PVOs on a collaborative basis with the indigenous PVOs. International PVOs have managerial and financial management experience which indigenous PVOs generally do not.

Other avenues available for immediate action include buy-ins to several Washington D.C. based NRM projects: the AFR/TR/ANR NRMS project, S&T FENR projects (including the Forestry Support Project and the Conservation of Biological Diversity Project). For the intermediate to long term, the team recommends that the Mission design an umbrella project including, but not limited to, the several components recommended in the Action Program.

3.2 Recommendations for Immediate Funding of Proposals Already Submitted: The Short Term Portfolio

Following are brief discussions of the merits of several proposals (or concept papers) already submitted to USAID/Kenya requesting funding, as judged by the NRMS team. Several of these proposals could be absorbed through the PVO Co-Financing project, others through Mission buy-ins.

3.2.1 AFRENA

A collaborative agreement, centrally funded by AID S&T and AFR, was initiated in 1986 as part of ICRAF's Agroforestry Research Network for Africa (AFRENA). The AID/W contribution was targetted at the highlands of Eastern Africa, including Kenya, Burundi, Rwanda, Tanzania, and Uganda. Similar zonal networks are operating in other parts of Africa funded by other donors. The purpose of the AID funded COAG was to develop a zonal research network focusing on the selection of multi-purpose tree species for use in the farming systems of the bimodal highlands zone.

The LOP funding level for this five-year effort was agreed at US\$ 4.0 million; at the time of agreement, only US\$ 2.7 million was obligated. The remainder was expected to be obtained through buy-ins from the individual USAID missions in the concerned countries. To date, only USAID/Uganda has indicated its intention to go ahead with the buy-in. OAR/Rwanda has included for this purpose under its new Natural Resources Management Project.

USAID/Kenya and the NRMS team agreed that the AFRENA buy-in matter should be reviewed and visits to ICRAF and the principal research site at Maseno in Western Kenya were arranged. In Nairobi, the Director of ICRAF briefed the team on the accomplishments of

AFRENA-East Africa and explained the funding requirements. He indicated that AID and ICRAF had designed the COAG and begun to implement it on the assumption that the respective buy-ins would be eventually forthcoming. In the case of USAID/Kenya, the anticipated amount was US\$ 300,000; ICRAF has indicated that resources made available in local currency would be perfectly acceptable for their purposes. ICRAF reiterated the terms of the COAG; AID resources for this endeavor were being used exclusively for training and research with facilities and staffing being obtained from other ICRAF sources.

The accomplishments at the Maseno site in this first year are impressive, both from the point of view of organization and research. The AFRENA activities are being undertaken collaboratively by ICRAF, KARI, and KEFRI. The latter two have posted scientists there and are providing operational resources for site development and other support functions. The land is part of the Ministry of Livestock Development where the AID-funded Small Ruminant CRSP has been operating. As anticipated AFRENA funds from AID have been supplemented with resources from other donors. For example, GTZ has provided the funding to build a modest research facility including labs, offices, conference/classroom, and workshop as part of a companion Tree Germplasm Development Project. Similarly, the Dutch Government is funding the resident ICRAF scientist who manages the AFRENA activities in Western Kenya.

The NRMS team believes strongly that, on the basis of its interviews and the site visit, USAID/Kenya should approve the requested buy-in for US\$ 300,000. This will allow the ongoing research to proceed as originally planned. Oversight of the AFRENA-East Africa activities have been the responsibility of AID S&T/FENR and the REDSO/ESA Regional Forester. Both concur that ICRAF has been effectively and efficiently carrying out the project and they urged USAID/Kenya to add its support. Although full documentation of the project is readily available from ICRAF or REDSO, the sections which follow provide a brief technical description of the project and a justification.

o Description

This five year project got underway in January 1987 with the initiation of a zonal (bimodal highlands) planning and formulation activity with the countries involved. The chief objective of this planning effort was to seek zonal complementarity in order to maximize the impact of the research being conducted. On the basis of problem diagnosis in each country, a major zonal planning workshop was held in mid-1987 and the strategy mapped out. The workshop decided that the project would concentrate its research on technologies addressing soil fertility and erosion problems in food-crop farming systems. Additionally, fodder, fuelwood and pole production would be useful by-products in some areas.

Complementarity of research was achieved by selecting altitudinal ranges for each country. Kenya was chosen to concentrate on the lower altitude (1000-1500m) farming systems, and

the Maseno site was selected. In-depth training on land-use analysis, problem definition, and agroforestry research design and methodologies has been carried out through formal workshops, training courses at ICRAF, and on-the-job activities. In order to profit from the increased institutional capabilities, each country has also been encouraged and supported in choosing and implementing a second research project of country-specific importance. In Kenya, the coffee based system of Embu District was selected and KEFRI and KARI have begun their efforts there.

The following is an indicative list of the experiments being carried out at Maseno with AID funding under the AFRENA COAG:

- Fodder production potential of different multi-purpose trees (MPTS) and grass combinations on the field bunds.

- The effect of *Leucaena* mulch and fertilizer application on the production from maize and maize & bean systems.

- Study on the effect of different cutting heights of *Leucaena leucocephala* on the biomass production in a *Leucaena*-maize alley cropping system.

- Effect of varying densities of *Leucaena* and distance of the first crop row from the hedge on the production of the tree biomass and maize yield.

o Justification

The applicability and relevance of research aimed at soil fertility enhancement and erosion control will be evident to anyone familiar with the highlands of Western Kenya. Why USAID/Kenya should fund such efforts by ICRAF, however, is another matter. The NRMS team believes that the following points are worth considering:

- The problems which ICRAF is addressing with this research are of immediate importance to the needs of the small and subsistence farmers of Western Kenya, especially in the lower altitudinal areas where dryer conditions exacerbate the soil degradation problem.

- Agroforestry research aimed at soil fertility and erosion control is an essential guarantee to ensure that the impact of the nation's principal agricultural research agenda -- improved varieties of basic grain crops -- may be realized. Hybrid varieties require good soil conditions to give their full measure of greater production. USAID/Kenya has a considerable stake in this through its funding of such programs at KARI. The ICRAF/AFRENA COAG should be viewed as an insurance policy for this investment.

- Agroforestry research is much needed in Kenya because of the enthusiasm of the farmers for tree-planting. Like farming systems research, however, it is a complex undertaking with numerous variables. The scientific knowledge and methodologies

developed at ICRAF, with past and present USAID funding, can be easily harnessed to train Kenyan researchers and secure reliable results.

- Owing to the effectiveness and efficiency of the ongoing ICRAF/AFRENA work, USAID can be assured a high return on its investment. Likewise, the present arrangements would mean only limited oversight responsibility thereby minimizing the management burden for the Mission.

3.2.2 Economic Value of Wildlife Proposal

The "beyond the Big Five" proposal prepared by Fagan and Stever is not recommended for funding. Everything that Fagan and Stever have said is true. They have done a good job of summarizing the current situation, the most critical problems and the needed interventions. However, what they propose to do is better refine the data base and propose actions that are currently being considered by numerous donor agencies, NGOs and PVOs. For example, we know gross tourism revenues and we know that the pricing structure must be modified. We know that tourist education is important but donors and other agencies are already addressing the issue. The matter of game ranching has been researched thoroughly in Kenya by a UNDP/FAO team. The government of Kenya badly needs to modify its approach to funding for national park management but consultants are not the answer to this problem. From a study design perspective there is much to be desired in this proposal; only a number of interviews are proposed. Our team is doing similar things. Our reaction is to put USAID's funding and efforts into more focused activities.

3.2.3 Kenya Conservation Trust

Preservation of seasonal migratory ranges south of Nairobi Park is high in priority. Support for an expert in securing easements to protect the integrity of the migratory ranges, to work with members of the Kenya Conservation Trust, is recommended.

3.3 Possible New Starts: The Long Term Portfolio

As mentioned in the accompanying report -- the Action Program -- "An Action Program determines the kinds of activities and support (institutional, policy, etc.) required to achieve sustainable NRM (agriculture, livestock, wildlife, forests, biological diversity) over a relatively long time frame (20 years) over a significant area in Kenya. The Program is developed without regard to Mission approved assistance or staffing levels."

This report -- Alternatives for Natural Resources Programming: USAID/Kenya -- defines the portion of the Action Program strategies that USAID/Kenya can undertake, given funding and staffing constraints.

In view of the fact that the team did not have the opportunity to prepare a nation-wide Action Program, and that the four strategy

components prepared represent but a limited number of NRM priorities in Kenya, we recommend that USAID/Kenya consolidate all of the four strategy components under one new project umbrella. We are convinced that these selected activities represent a coherent package which addresses AID/W PNRM concerns and the USAID/Kenya CDSS, although there are other possible priority area that could be considered. The four strategy components include renovation of infrastructure, development of tourism potential and extension education for Tsavo West National Park; extension and natural resources education training and deployment for the Mara area; agroforestry extension activities for the Nakuru area; and institutional long term training support for the Tana River Primate Research Center. These four NRM "niches" encompass nearly all PNRM concerns -- forestry, agroforestry and soil conservation, wildlife, and extension and training.

The project envisioned will have an institutional management structure with grants to various NGOs or other local organizations as appropriate. Other donors, e.g., JICA, could be approached to finance the procurement of vehicles and infrastructure development. The project will contain a number of integrated components including preservation of biodiversity through protection of unique natural communities, recovery of endangered species, food security through long term sustainability of soils via agroforestry practices, maintaining the integrity of national parks through involvement of local peoples and long term conservation of natural resources through educational outreach activities to local peoples and school aged young people.

3.3.1 Prioritization

The NRMS team prioritizes the four recommended projects in the Action Program as follows:

1. Tsavo-West National Park
2. Tana River Primate Research Center
3. Lake Nakuru Watershed
4. Masai-Mara Reserve

The Tsavo-West is placed as top priority because of the crisis condition of the park infrastructure and the serious deterioration of the ability of the park for self-maintenance. Tsavo-West is one of the world's most important elephant sanctuaries and poaching is steadily reducing the elephant population. Tsavo is also near the coastal entry point for large numbers of tourists and has the potential to generate much more foreign exchange reserve than at present, if it can be made more attractive to tour operators. Tsavo does not receive a lot of attention from other international development and donor agencies, thus, it could be a "showcase" for USAID/Kenya.

The Tana River Primate Research Center is an example of a project centered in one of the remnant tropical forests of Kenya. Both high- mid- and lowland tropical forest remain only in small isolated tracts. These areas are especially rich in plant and

animal species diversity, and should receive much more attention from conservation agencies. The rates of losses of natural forests in Kenya are rapid. These forests are important because of their genetic resources which could serve as sources of germ plasm for improvement of agricultural crops, forest plantations trees and medicines for human welfare. USAID/Kenya is well-advised to place considerable emphasis on conservation and management of these unique remnant and relic forest tracts. The proposed support for the Tana River Primate Center offers this opportunity.

The Lake Nakuru Watershed component is an example of an extremely widespread problem across much of Africa: the impact of soil and water losses to improper resource management practices which will, in the long term, seriously reduce the food-producing capacity of the land. There is perhaps no single problem of greater importance in agricultural areas than loss of soil productivity and long-term sustainability. In the case of Lake Nakuru, the eroding soil threatens a unique wildlife sanctuary: the lesser flamingo feeding habitat of Lake Nakuru. As proposed in the Action Program, by reducing soil and water losses in the watershed, through appropriate agroforestry practices, a wildlife resource and its associated tourism can be maintained concurrently with protection of a watershed and its food and fiber producing capability. This project would be an excellent example of integrating agricultural, forestry and wildlife conservation into a single effort.

The Masai-Mara Reserve and its surrounding rangelands comprise the single most important wildlife preserve in East Africa. The team placed the proposed extension and training component in 4th priority, not because of lesser importance, but because so many other donors are already supporting projects in the Mara. If USAID/Kenya has the financial resources to assist in the Mara, the proposed extension and environmental extension components represent a "niche" not currently being addressed. In fact, extension education and training represent areas not well addressed by other governments or NGOs in Kenya, for any natural resource project.

3.3.2 Current Portfolio

All of the recommendations made by the team fit within USAID/Kenya's current portfolio and administrative structure -- Private Sector Development, Human Resources Development and Agriculture. The Tsavo and Mara projects both contain components that address development of enterprises to generate income for local people; i.e., the private sector. All four projects contain educational and training components which are a part of human resources and development. The Lake Nakuru project is agriculture and forestry related which falls in the domain of the Agriculture office. The Tana River project is forestry which also falls in the Agriculture category.