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PROJECT DATA SHEET

TITLE: Arid and Semi-Arid Lands Project
PROJECT NO.: 615-0172
LOCATION: Kenya
YEARS: 1979 - 1986
FUNDING: USAID: \$13.0 million
GOK: \$ 7.1 million

WORKING DRAFT

(FOR DISCUSSION ONLY)

ASAL EVALUATION

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EVALUATION OF THE ARID AND SEMI-ARID LANDS PROJECT
Prepared for
The Center for Development Information and Evaluation

I. Introduction

1. Background

This evaluation of the A.I.D. Arid and Semi-Arid Lands (ASAL) project in Kenya is part of a major assessment of the Agency's implementation of the women in development program by the Bureau for Program and Policy Coordination, the Center for Development Information and Evaluation (PPC/CDIE). The purpose of the assessment is to study the mechanisms and strategies that A.I.D. has used to implement the 1973 legislative mandate for women in development. The objectives of the study are the following:

--to assess the progress the Agency has made in integrating women as active agents and recipients of development activities; and

--to identify lessons learned from the project experience of the past decade.

A desk study reviewing 100 randomly selected projects has been completed. This review, along with Mission input, has provided a tentative list of projects for a field study. The purpose of the field study is to further explore a number of issues relevant to the integration of women into the Agency's programs and projects. Some 10 projects were chosen for the field studies, among them the Arid and Semi-Arid Lands project in Kenya.

Each project was selected in coordination with the relevant USAID Mission. Some of the field studies were undertaken precisely for the CDIE assessment, while others were part of scheduled project evaluations that the Mission was already undertaking. One to two CDIE team members (both AID staff and consultants) worked alone or in conjunction with project evaluation team members over a period of two weeks in the field and several weeks both before and after the field work.

The evaluation team members used a rapid reconnaissance methodology in the field through interviews with project staff, participants and beneficiaries. Open ended questionnaires were used to collect the most relevant information.

2. Project Setting

The Arid and Semi Arid Lands project is a project funded by USAID/Kenya in conjunction with the Government of Kenya.

a. country context

According to the most recent Country Development Strategy Statement, Kenya's national objectives have remained substantially unchanged since independence. Growth, equity, and the consolidation of indigeneous control have been at the core of the Governments's policies and programs. In the early years, rapid economic growth both financed and substituted for improved distributional equity. However, the country has been undergoing some difficult economic times in the past few years which have constrained the achievement of both sets of objectives.

At present, despite its position as one of the most stable countries in Sub-Saharan Africa, Kenya faces some serious problems with regard to imbalances between the demands of a rapidly growing population and the ability of the system to respond to these demands. The 4 percent annual population growth rate has produced a large base of young people. The surge of these young people into the labor force brings pressures on the requirements for education, training, employment, social services and land ownership. Increasingly scarce financial resources are making it difficult for the Government to respond to the growing demands and expectations.

The economy remains dominated by the agricultural sector which accounts for one-third of GDP, one-third of inputs into manufacturing, two-thirds of the labor force, and seven-tenths of non-petroleum exports. Some 85 percent of the country's population is classified as rural, the great majority of whom are smallholders. The land base is increasingly being sub-divided and per capita availability of high and medium potential land has fallen from .83 hectares in 1962 to .42 hectares in 1980.

The country is divided into six ecological or agro-climatic zones which are based on rainfall and moisture indices. The arid and semi-arid zones, in which the ASAL project is located, receive from 200 to 800 millimeters of rain. In general the arid and semi-arid areas are characterized by severe natural resource limitations, rising population pressures, and inadequate management of the existing resource base.

Kitui District is located in the Eastern Province of Kenya. Almost all the land area is of medium or low potential characterized by arid or semi-arid agro-climatic conditions with rainfall between 300 and 800 mm. The District is composed

almost entirely of Kamba people who combine agricultural production with livestock raising. Customary work parties are common feature of Kamba society, providing mutual assistance in a variety of activities. The District has a high incidence of male out-migration and generally, agricultural production has been limited by the availability of labor.

b. project history

In the fall of 1978, an inter-ministerial task force began preparing a policy paper which would set forth the GOK's objectives, strategy, and organization for implementing its development program in the arid and semi-arid zones. The document entitled Arid and Semi-Arid Lands Development in Kenya: The Framework for Implementation, Program Planning and Evaluation sets forth the primary objectives for the development of the zones. The U.S. became involved in the planning process through the funding of the Pre-Investment Study which laid out the status and prospects for the development of the people and the land. The ASAL project, which is the subject of this evaluation, stems directly from the U.S. involvement with the GOK in the development of the arid and semi-arid areas.

As originally conceived, the ASAL project addressed problems at both the national level through planning and data collection, and at the district level through pilot activities in Kitui District. The project was meant to establish a basis for launching an accelerated development program in all the arid and semi-arid zones and to improve and preserve the agricultural production base in portions of Kitui District. The project had life-of-project funding of \$13,000,000 and was to be implemented between 1979 and 1983.

Project start-up was delayed, however, with the first technical assistant arriving only in October 1981. Actual field work at the District level did not begin until the following year. Because of these factors, as well as mounting financial and economic pressure for the GOK, the project was modified.

A mid-term evaluation took place in April 1983 indicating the need to refocus a number of the project's interventions. The most significant changes suggested by the evaluation and included in a Phase II work plan were the following:

- reduced assistance at the national level to the ASAL planning component;
- expansion of water conservation activities;
- expansion of range conservation activities;
- reorganization of project's extension and education approach; and
- increase in the level of AID support for recurrent costs associated with the project.

The project was formally amended in February 1985. This amendment provided the basis for a revision of the Amplified Project Description and Budget of the Project Grant Agreement signed in August 1979. For the purpose of this evaluation, the project until 1983 is considered Phase I, and after 1983, is considered Phase II.

c. role of women

In Kitui District, women are the backbone of the rural economy. Eleven percent of the households in the district are officially headed by women but an additional 29 percent have no resident adult male. According to census figures, 40 percent of the adult males have migrated from the area. However, during the 1982-1983 drought, a socio-economic survey in one of the areas of the highlands found that 60 percent of the adult males had migrated for work and another were working off the farm. Approximately 59 percent of the farms in the district are operated solely by women.

Women do not inherit land but they acquire land use rights through their husbands. Adjudication of land formerly held under customary tenure has led to registration of ownership exclusively in the name of the husband.

Men were traditionally responsible for building huts, making tools, trading, curing skins, hunting and herding. Women were responsible for food production, food preparation, fetching water, collecting firewood, milking cows and caring for children. Even at present, women are responsible for growing subsistence crops to feed the family. Men participate in agriculture to the degree that they undertake the more strenuous jobs such as clearing fields, ploughing, tending livestock and spreading manure.

As a result of male migration, off-farm work, children's school attendance, and population explosion, the demands on women's time are increasing. In addition to planting, hoeing, weeding, harvesting crops, seed selection, storage and treatment, grinding grain, processing and preparing food, fetching water and firewood and milking cows, women also make beer, honey, pottery and baskets to generate cash. In men's absence, they increasingly shoulder the burden of land clearance, ploughing, and tending cattle. They work 15 hours a day on the average.

As increasing population pressure has led to settlement of more marginal land, many homesteads are located 10 km from a water source, greatly adding to the burden of fetching water. Women are also actively involved in marketing and frequently the only source of cash for women is derived from selling small amounts of farm produce or baskets.

In addition to their work in agriculture, women spend at least 5 hours a day collecting water, up to three hours cooking and 45 minutes gathering firewood. Even self-help activities impinge on women's time and often take them away from essential activities at home. Nevertheless, women actively participate because they require the services that self-help provides. It is also a social occasion.

In the past, the rôle of women in agriculture was overlooked. New techniques were targetted to men. This led to a low rate of adoption because few men were actively involved in production of subsistence crops. In recent years, this has changed: in 1978, 51 percent of the participants in the farmer training courses in the district were women. This is one of the highest rates in Kenya.

In spite of the fact that the district's economic base remains agriculture, the main source of economic accumulation lies outside agriculture. Off-farm employment (regular and casual) accounts for 31.5 percent of total household income, while farm earnings account for only 26 percent. Non-farm activities provide 25 percent of household income and remittances another 18 percent. This pattern contrasts sharply with the rest of Kenya, where 57 percent of all income is derived from the farm. Seventy percent of the adult males and females in the district are engaged in off-farm work at some time during the year, while the remaining 30 percent of the men have full-time off-farm work.

The main off-farm activities of women are sales activities, working for wages on other farms, selling food, handicrafts and petty trading. In the poorest households, women's sales of beer, prepared foods and charcoal are the main source of cash for everyday food purchases. All households buy certain food items on the market and a majority supplement self-provisioning production with purchases of maize during the period before the main harvest.

Interview with farm women revealed that women generate more cash through sale of baskets than any other source. Their earnings exceed cash they receive in remittances from husbands and sons working away. It provides a steady trickle of cash year round, which the women use to buy food items. If the husband lives at home and has a steady job off the farm, he also contributes cash for everyday food expenditure. Otherwise, the man's earnings are earmarked for big ticket items like school fees. Women without husbands earn cash for school fees. Women without husbands earn cash for school fees by selling baskets and working for wages on other households' farms. Husband and wife have separate income streams which are not pooled.

II. Project Analysis

1. Project goals and objectives

As originally stated in the Project Paper, the ASAL project was to assist Kenya in its efforts to establish a basis for a national accelerated development program in arid and semi-arid lands through: a) enhanced administrative, planning and technical capabilities, and b) testing and proving an array of activities in soil and water conservation and tillage methods. The project was also meant to assist Kenya improve and preserve the agricultural production base in portions of Kitui District. The overall goal of the project was to raise the standard of living of small farmers and pastoralists living in four Divisions of Kitui District. Assistance was to be provided for three basic components:

--ASAL Planning: The objective of this component was to strengthen the national and district planning capacity for the arid and semi-arid lands.

--Data Collection and Analysis: The objective of this component was to gather information for ASAL planning, program monitoring and evaluation. Included in this component were resource inventories, aerial photography and mapping, and feasibility studies.

--Soil and Water Conservation: The objective of this component was to test new techniques of moisture conservation on the land including techniques of afforestation and tillage. Training in conservation techniques was to be provided.

As a result of increasing economic and financial pressures on the GOK, there was recognition that the ambitious development plans for the arid and semi-arid lands would have to be scaled down. A 1983 evaluation (Richard Hook, Harvard Institute for International Development) recommended a phasing out of the national level activities with greater emphasis on, and expansion of, interventions in Kitui District.

The revised project incorporates the major themes of the original project, aiming to improve and preserve the agricultural production base in Kitui District. Water conservation and development, improved agricultural production through soil and moisture conservation, and improved livestock production via proper range management are the core areas of focus. Training and extension are meant to support activities in these areas.

The principal changes that have been incorporated in the revised project include the following:

- substantially reduced assistance to the national level ASAL planning component;
- expansion of the water conservation component to include water rehabilitation and development of water points;
- expansion of the range conservation activities to include a more direct participation in range management, livestock production and marketing;
- reorganization of the project's extension and education approach to provide greater outreach to farmers;
- increased support by AID of recurrent and selected capital costs; and
- mwethya or self-help labor is valued as an in-kind contribution by the GOK but does not actually represent a budget outlay because the groups do not receive any payment.

2. Project strategy

a. target group/beneficiaries

The overall goal of the project in its original form was to raise the standard of living of small farmer and pastoralist households living in four divisions of Kitui District. This was to be achieved by decentralized land use planning coupled with development and testing of improved tillage and soil and water conservation measures which would be implemented on a pilot basis. Some 21,000 rural households were expected to benefit from soil and water conservation activities.

The main emphasis was on the preservation of the existing agricultural base rather than on increased production. Soil and moisture conservation measures were expected to increase farm output, but actual expected increases in yields and farmer incomes were not quantified. Soil and water conservation technicians trained as a result of the project were targetted as the direct beneficiaries. The intended beneficiaries were identified as the smallholders who would eventually adopt the soil and water conservation technologies. Members of self-help groups were also expected to benefit from paid employment in soil and water conservation activities during the dry season. They were also expected to benefit from increased access to resources and opportunities.

In the revised project, with the added emphasis on district-level activities, there is an increased potential for reaching out to disadvantaged areas beyond the densely populated highlands of Central Division. The addition of the livestock component compensated for the over-emphasis on soil conservation and agriculture, and increased the possibility of extending benefits to geographic areas where dependence on crop production is marginal due to the unreliability of rainfall.

The recognition that water for human and animal consumption was the number one priority greatly increased the potential for benefitting women. Similarly, the emphasis on goat production, apiculture, and adult education and community development widened the scope for outreach to women. However, little of this was actually reflected in the revised project paper.

Another important change between Phase I and Phase II, was that cash compensation for mwethya group labor input was recognized to be impossible due to the growing financial pressures on the GOK. However, the District and project authorities discovered mwethya groups as an effective way of reaching large numbers of farm households at a relatively low cost per beneficiary. What has actually happened is that the mwethya groups have become the backbone of the project, not merely as a source of free labor, but as a receiving mechanism for project inputs at the community level. As a result, the primary beneficiaries and target group are the mwethya groups, and women who form the majority of their membership.

b. socio-economic characteristics of mwethya groups in the ASAL project area

In Kitui District, the incidence of out-migration of young men is very high, leaving primarily women, children and older men to carry out the tasks. Although those who migrate to the cities often provide a considerable portion of family income in the form of remittances, the burden of caring for the family and cultivating the fields is left to the women.

Mwethya groups thus play an important role in providing assistance for a number of different activities that are performed and they remain a very strong community force in Kitui. The groups are involved in a whole range of activities including soil conservation, construction, agriculture and handicrafts. Ideally, these groups initiate their own projects, elect their own leadership, and decide on the amount of time to be allocated to activities, as well as monetary contributions in support of those activities.

Presently in Kitui District, there are approximately 3,500 active mwethya groups (as registered with the District office of the Ministry of Culture and Social Services). Membership in the groups is composed of 90 percent women, although leadership comprises both women and men. The groups range in size from 15 to 50 members. All of them have a chairperson, a secretary and a treasurer who are elected by the members. No particular term of leadership is apparent, and membership seems to be quite consistent with little turnover. Some of the groups were established in the 1960s, others more recently.

The mwethya groups are at the core of community level development in Kitui District, performing much of the agricultural and community development work. Although participation in mwethya groups requires a substantial labor input on the part of its members, the members also benefit from this input since the work is performed for the benefit of all the members both individually and collectively.

While the structure of each mwethya group is basically the same, there are differences in their work patterns, the timing of labor input, their monetary contribution, the quotas of work to be performed, and sanctions on members. The groups usually work between one and two days per week on communal activities. In the case where a series of groups have formed a larger group for a particular purpose, some amount of time is devoted to the activity of both the smaller and the larger group. Monetary contributions by members of the groups do occur, either as a systematic contribution such as a monthly payment, or for a particular purpose, such a replastering a rock catchment. The groups often have a rotating credit system whereby each member contributes a certain amount of money which is then used all at once by one member for a particular purpose. Some groups also have a "treasury" which serves to help out a group member in need. About half the groups are said to have bank accounts.

Under the second phase of the ASAL project, greater emphasis was given to activities in Kitui District as opposed to those at the national level. Therefore, the mwethya groups play a critical role in the project. First, they are a critical input. Their labor contribution, and to a lesser extent their monetary contribution, form the basis for the bulk of the field activities to be completed for the project. Second, and closely linked to the first, the mwethya groups contribute to the expected outputs of the project. Third, their contribution results in impact: in this sense they are both participants and beneficiaries since they contribute to, and benefit from, project activities. And finally, they will be a critical aspect of the self-sustainability of project activities and will be contributing factors to the success or failure of the project.

3. Project components and institutions

a. soil and moisture conservation

The primary objective of this component is to improve agricultural production and preserve the agricultural resource base through better adapted soil and moisture conservation practices. This component includes the following activities:

- preparation of a manual on soil and water conservation principles and practices;
- in-service training on new or revised approaches to soil and moisture conservation;
- training of soil conservation assistants;
- local production and distribution of hand tools;
- dam-desilting; and
- development or expansion of small water development projects including rock catchments, wells, springs and sub-surface dams.

Institutions: Ministry of Agriculture and Livestock Development
 Ministry of Culture and Social Services

b. crop and nursery development

This component is closely linked with the soil and moisture conservation activities. It is primarily geared towards developing trials for improved technical packages and cultivation practices for dryland farming under arid and semi-arid conditions. As part of this component, there are the following activities:

- field trials and demonstrations within various recommendation zones;
- regular and frequent supervisory visits to field staff through an adapted training and visit system;
- local production of improved ox-drawn implements;
- setting up of nurseries through tree and seedling distribution; and
- training.

Institutions: Ministry of Agriculture and Livestock Development
 Ministry of Environment and Natural Resources

c. water development

The 1984 - 1988 Development Plan for Kitui District, singled out water development as the number one priority of the District. In the first phase of the project, a major study of water resources was carried out. This study provided the basic

orientation for the water development component under Phase II. The focus of this component is to provide clean water supplies for primarily domestic, but also for some livestock and small-scale irrigation needs. As stated in the Phase II Work Plan, "the study noted the need to involve communities in various phases of planning, construction and operations in order to insure that water supplies are properly maintained by consumers for their own benefit." The following activities are included in this component:

- construction of rock catchments, wells, springs, earth dams and sub-surface dams;
- organization and training of water user committees;
- provision of some tool and equipment; and
- technical training for water inspectors.

Institution: Ministry of Water Development

d. livestock development and range management

The focus of this component is to upgrade the District's land and animal resources so as to improve the food producing and income-generating capacity of the livestock sector. In the area of range resource management, the activities are as follows:

- range rehabilitation and bush control trial and demonstration plots,
- grazing management demonstrations;
- acquisition of fodder seed;
- establishment of a pilot goat improvement scheme; and
- development of improved hoeny production.

In the area of mixed farming resource managment, the activities include:

- provision of pre-extension farm inputs;
- improvement of cattle infrastructure;
- extension support; and
- training courses.

Institution: Ministry of Agricultural and Livestock Development

e. education and community development support

The introduction and expansion of effective extension and educational support was seen as crucial to the implementation of Phase II activities. The need to involve the participants and beneficiaries in project implementation and maintenance was stressed. Accordingly, the Ministry of Culture and Social Services plays an important coordinating function in the ASAL project. The activities of this component include:

- registration and training of self-help or mwethya groups;
- field days
- provision of material for construction of farm tools; and
- provision of training materials.

Institution: Ministry of Culture and Social Services

4. Project inputs

The project includes four major categories of inputs: technical assistance, commodities and equipment, training and labor.

a. technical assistance

Both USAID and the GOK contribute towards personnel and technical assistance at the national, district and field levels. According to the revised project documents, the level of technical assistance and counterpart support is as follows:

--ASAL Planning:	116 person/months
--Data Collection and Analysis:	245 person/months
--Kitui Interventions:	474 person/months

b. commodities and equipment

Projects inputs in this category are primarily in support of the Kitui interventions. They include: vehicles, office equipment and supplies, construction material, tools, field equipment, training equipment, and farm inputs.

c. training

The project includes overseas participant training and Kitui-based training. The first group of participants in the overseas training program has completed the training courses in the U.S. Two other groups of participants are scheduled for training. Kitui-based training in the form of in-service training of field staff and seminars and workshops for senior staff is also an important input in support of activities in the core sectoral areas.

d. labor

Most of the Kitui level interventions require a substantial labor input. Self-help or mwethya labor is therefore a critical input in support of the achievement of the project's objectives. Activities include carrying stones, digging wells, terracing fields, planting trees, rehabilitating overgrazed areas, and assisting in setting up demonstration and trial plots.

The different project components include varying amounts of self-help labor. In the Phase II Work Plan, estimates were made of the amount of person days required for the achievement of targets. Estimated person days were multiplied by K# 1.0 to come up with a total value for the labor input per component.

The self-help contribution valued in this manner is as follows :

	<u>(in K# 1000)</u>
Water conservation and development:	28
Soil and moisture conservation: through Ministry of Agriculture and Livestock Development:	743
through Ministry of Environment and Natural Resources:	4.4
Livestock Development:	1.5
 TOTAL	 778
(in \$U.S.	1,153)

5. Socio-economic and gender assumptions

a. incentives to participate in the project activities

One of the major assumptions underlying the project strategy was that self-help labor through the mwethya groups would be provided for the many planned project activities requiring their input. In the original project paper, incentives for the mwethya groups' participation in project activities were to be provided in the form of cash remuneration. The project paper notes:

The labor for constructing conservation works will be provided by self-help groups whose membership consists of farmers within the work area. Labor will be paid on the basis of tasks performed or on a piecework basis. The type of work required qualifies for the rural minimum wage for agricultural workers. The administration of labor contracts with the self-help groups will follow existing procedures being used by district management.

The Social Soundness Analysis states that "while it is not desirable to disrupt the traditional system of donation of labor to such activities, a year-round labor force will not be forthcoming without a cash incentive." Clearly, it was expected that their labor input would not be available without a cash incentive. However, a potential negative effect on the notion of self-help was also identified.

In the amendment to the project, this approach was modified significantly, with mwethya groups expected to provide their labor input without cash remuneration. The labor is valued as an in-kind contribution by the GOK. The project, in effect, has been able to plug into and encourage an existing system of self-help to achieve its objectives, and indeed those proclaimed in the GOK's strategy for the arid and semi-arid lands.

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In light of this change, a major theme of the evaluation was to find out what incentives mwethya group members have to supply labor, and what direct benefits accrue to them as a result. As is evident, the labor input required by the mwethya groups is substantial, particularly in the area of soil and water conservation. Since the groups are not paid for their labor input, there is not a direct financial incentive. However, it has been noted that there may be longer run financial incentives in terms of income generated from increased production and/or income saved from increased production through lower food purchases. Many of the groups are also provided with tools.

Overall, the strategy pursued in the ASAL project assumes a high degree of participation by mwethya groups in all project components, particularly soil and water conservation and water development. The participation mwethya groups in these activities may be attributed to the following factors:

- traditional role of mwethya groups in soil and water conservation activities
- provision of technical assistance through extension agents, conservation assistants and other technical staff
- provision of technical and leadership training
- provision of tools and materials
- provision of training materials

However, as noted earlier, the mwethya groups do benefit from the labor that they provide. The outputs to which they contribute their labor, and to a lesser extent money, such as rock catchments and terraced fields, are outputs from which they benefit. The mwethya groups, therefore, have played and will continue to play a critical role in the achievement of these objectives.

b. Possible implications of gender for project success

Women are relevant for project success both as contributors of labor for project activities and as beneficiaries. Eighty percent of the members of the self-help groups, which are expected to provide labor for soil and water conservation, are women. Women are relevant for soil and moisture conservation as the principal farmers. The impact of crop development activities depends on the attractiveness of innovations to women and the extension system's outreach to female farmers.

Women are relevant for the success of water development activities through the reliance on mwethya group labor for the construction, rehabilitation and maintenance of sources. Because of their responsibility for fetching water, they will

also be the main beneficiaries. Among the livestock components, women are relevant for apiculture and goat production. They also contribute mwethya labor for construction of cattle dips. Their relevance for community development and adult education lies in the fact that mwethya groups are the main vehicle for community development. Female illiterates are also the main target group for adult education.

The main gender issue facing the project regards the labor supply for self-help activities. If women are overburdened with farming and domestic responsibilities, what incentive do they have to supply free labor for project activities.

III. Process Analysis

1. Recognition of the role of women

a. project background and documentation

The Pre-Investment Study included 10 volumes covering the current status and future prospects of the people and the land in the arid and semi-arid zones. Several of the volumes included information pertaining to women's roles in the farming system and in the mwethya groups (Report No. 2 Agronomy; Report No. 3 Economics; Report No. 6 Human Resources and Social Characteristics; and Report No. 7 Institutions).

The Social Soundness Analysis for the original project paper included a section on the role of women in Kitui District and on the characteristics of mwethya groups in the project area. There was recognition of the high percentage of women-managed farms due to male out-migration and to the fact that women assume day to day management of the farm. It was also noted that women are being forced to take on tasks formally performed by men in addition to their own responsibilities, leaving little extra time in the day.

The Social Soundness Analysis also refers to the fact that mwethya groups are primarily composed of women. Although the self-help concept is undergoing change due to stratification within the society and technological innovations, it has been suggested that women will continue to be involved in mwethya groups. Quoting Martin Hill's work on self-help groups, the analysis notes that:

Women's mwethya will however, continue as long as male out-migration and children's education have left them the only segment of the population not otherwise employed. Traditional female solidarity is further re-inforced by the sharing of new responsibilities forced on them by these factors.

Although the Social Soundness Analysis stressed that the main protagonists of project activities would be self-help groups, composed primarily of women, the project paper itself refers to beneficiaries of the project as smallholder farmers and pastoralists. The paper states that the soil and water conservation component was meant to provide increased employment opportunities to the intended beneficiaries and improved production potential. Basically, the mwethya groups were seen as a source of labor for conservation activities, not as beneficiaries per se.

Thus, although it was recognized that the mwethya group labor input was to increase significantly (while no payment was to be provided), there was no discussion of how they would benefit and what incentive they would have to participate in project activities. The social soundness analysis was deemed valid and applicable nonetheless.

In addition, the revised project documents did not include any discussion of the farming system as a whole or of the activities of different actors in that farming system. In particular, there was no discussion of the extent to which activities proposed by the project would fit in, or would conflict, with other responsibilities. Given the very extensive involvement of mwethya groups as inputs to project activities and receivers of project inputs, the amended project should have discussed in more detail the incentives and constraints faced by mwethya group members, women in particular.

b. project implementation

What has turned out in actuality, is that mwethya groups, and the women who are their members, have become the primary participants and beneficiaries in the implementation phase despite the fact that limited attention was given to them in the design phase. In some sense, the project had no choice but to work with and through the mwethya groups since they are extremely active at the community level. And because women comprise the bulk of mwethya groups' membership, the project also had no choice but to work with and through women.

Part of this can be explained by the fact that mwethya groups were already doing much of the soil and water conservation and water development activities even before the project was initiated. Therefore, the project was able to plug into an existing system and encourage the mwethya groups to continue to do what they were doing previously. In addition, the GOK's financial crisis forced the District authorities to seek more cost-effective ways of delivering services to rural areas. Thus, the project is accomplishing its goals of soil and water conservation, and water points development, and is reaching a large number of households at a relatively low-cost per beneficiary.

2. Accomodation of project design to target group

At the time of the project design, a number of special features were listed which were intended to improve outreach to women. These include:

- cash payment to self-help groups as an incentive for them to provide labor year round;
- recruitment of females for work as project soil conservation assistants;
- efforts to recruit female professionals for participant training abroad; and
- a request for a sociologist to periodically assist the project.

None of these recommendations were actually implemented. In the course of project implementation, however, a number of modifications were introduced in project institutions and delivery systems which had a positive impact on women. These included:

- modification of the timing of soil conservation works to fit mwethya groups' schedule;
- modification of extension delivery from a contact farmer to a group approach;
- involvement of the Ministry of Culture and Social Services;
- experimentation with labor-saving devices for weeding and sorghum de-hulling; and
- incorporation of a domestic water supply component.

What is noteworthy is that none of these modifications was introduced out of concern for helping women. In all cases, the reason was increased efficiency.

IV. Analysis of Results

1. Progress in implementation

a. soil and water conservation and development

A large number of projects have been undertaken in soil and water conservation. At the outset of Phase II, it was anticipated that projects begun in the first phase under the auspices of the Ministry of Agriculture and Livestock Development would be completed, but that no new projects would be initiated. It became apparent to project management, however, that there was a need for continued assistance to small water projects that would not be picked up by the Ministry of Water Development. Given this trend, the labor input by mwethya groups is significant and higher than originally estimated.

Both the topography and the climate in Kitui District require some form of erosion control. Structural erosion control in the form of terracing fields has become very popular in the District. The immediate labor inputs required by these activities are substantial, although they may be labor-saving in the medium- and long-term.

The following table shows the number and type of soil and water conservation outputs that have been completed or that are currently underway:

* * * *

<u>Soil and Water Conservation</u> <u>Activities under MA&LD</u>	<u>Total</u>
Cut-off drains constructed (km)	386.4
Fanya juu terraces constructed (km)	1311.7
Bench terraces constructed (km)	222.3
Shallow wells (number)	3
Rock catchments (number)	30
Springs (number)	2
Sub-surface dams (number)	20
Earth dam (number)	2

* * * *

These terraces and water sites have resulted in a greater availability of water, a better quality of water, time savings in the case of water sites that are more accessible to more people, higher productivity on fields that have been terraced, less soil erosion and greater water retention.

Other outputs in the area of soil and water conservation include the following:

- a draft soil conservation manual has been completed
- 45,000 tools have been distributed to some 2000 mwethya groups
- 42 soil conservation assistants have been trained
- prototypes for improved ox-drawn equipment have been developed and are currently being tested
- a number of water users groups have been established
- a soil conservation training course has been held for 36 mwethya group leaders

Mwethya groups also contribute a substantial amount of labor to the MOWD water development projects. In support of such water projects as small rock catchments, springs, sub-surface dams and wells, the mwethya groups provide labor in the form of breaking stone, collecting sand, plastering and digging. The

mwethya groups' labor input on larger water projects initiated by the MOWD is often combined with the labor input from paid casual laborers, both skilled and unskilled. although, in some cases, in conjunction with paid laborers.

The following table shows the number and type of outputs that have been completed or that are currently underway, to which the mwethya groups have contributed labor:

* * * *

<u>Water Development Activities</u>	<u>Total Number</u>
Rock catchments	12 <u>1/</u>
Shallow wells	9
Springs	3 <u>2/</u>
Earth dams	3
Sub-surface dams	5 <u>3/</u>
Dam desilting	2

Notes:

- 1/ six include both mwethyas and paid casuals
four include primarily mwethyas with a few casuals
- 2/ two mainly mwethyas and a few casuals
one with 90 percent mwethyas and skilled labor (fundi)
- 3/ one includes mwethyas only
four include mwethyas and a few casuals

* * * *

In support of their work on soil and water conservation activities, mwethya groups are provided with tools and equipment, and training. The tools (which are made locally) include shovels and noes. The decision on which groups get the tools is made at the local level by the MA&LD staff based on how active that particular group is in soil and water conservation. It is planned for every member of a group to have her/his own set of tools.

Mwethya groups are also visited by agricultural extension agents or soil conservation assistants. Some training has taken place on soil conservation. A one week training course on this subject was held in February 1984, for leaders of 39 mwethya groups.

Limited direct inputs are made available to mwethya groups working on MOWD water projects. Some tools are made available to the group in support of activities such as crushing rocks. However, these tools do not belong to an individual member of group, but rather are rotated among the different groups. Cement is also provided by the project for construction or plastering on rock catchments, dams, etc.

A number of other inputs, although not provided directly to the mwethya groups, are intended to benefit them in some way. These indirect inputs include the following:

--soil and water conservation manual: a draft of this manual has been completed. When the final version is ready, it will be field tested and eventually used by the agriculture extension officers and the soil conservation assistants in their work with the mwethya groups.

--training: a number of different training courses have taken place or are planned during the course of the project. Forty-two of 55 soil conservation assistants have been trained at this point. Theoretically, these officers would be providing technical advice to the mwethya groups involved in soils and water conservation. At onetime, they were also very active in distributing tools to the groups. Other workshops and in-field training sessions are being held for agricultural field staff on revised approaches to soil and water conservation. Again, the people who are trained will be dealing with the mwethya groups among others. The MOWD component includes three types of training: 1) training for water user groups; 2) on-the-job training of inspectors, masons and other workers; and 3) technical seminars and training.

b. crop and nursery development

The ASAL crop component under the aegis of the MA&LD is primarily involved with farm demonstrations, seed bulking, and training. Tools, seeds, and training have been, or will be, provided to mwethya groups. The tools consist of certain small farm implements as well as ox-drawn equipment. Prototypes for various ox-drawn tool and attachments for soil and water conservation techniques have been completed and testing is currently underway. A particularly important tool will be a weeder attachment which will be distributed to the mwethya groups.

Several bulking sites have been set up for a number of locally grown and improved crop varieties. The seeds are not yet ready for distribution, but eventually will be distributed to mwethya groups.

The ASAL project is working with the Ministry of Environment and Natural Resources (MENR) in establishing tree nurseries. This is seen as lending additional support to the core activity of soil and water conservation. Tree planting is being promoted. Six mwethya groups have received assistance in the form of training, improved varieties of fruit trees and basic tools and equipment. One training course on nursery management techniques was held, attended by a representative from each group. It is estimated that some 25,000 people have been provided with seedlings.

Other inputs to this component include:

--training for District MA&LD staff and field staff: bimonthly visits to agricultural staff in the higher-potential zones have been taking place in order to transmit soil and conservation and agronomic recommendations in the various agro-climatic zones. Eventually, the mwethya groups themselves will be receiving such information.

--off-farm and on-farm trials for new crop varieties and new terracing techniques such as run-off harvesting: these trials will move to the demonstration and then incorporated into the Training and Visit system whereby mwethya groups will have access to this information.

c. honey production

As part of the range management and bush utilization component, the project is assisting in honey production. This will include the establishment of 22 apiculture demonstration units. A limited amount of labor input is required in the form of managing the hives and harvesting the honey.

Approximately one hundred improved bee hives have been provided to six mwethya groups to serve as demonstration apiaries. More hives are to be distributed but this distribution is currently constrained by the lack of availability of these hives. Members of groups have also been provided with training in modern honey production. Out of 71 people trained in these courses, between 15 and 20 were women.

d. extension, training and adult education

The MCSS is responsible for coordinating training in a number of areas. Through the Community Development Office (CDO) of the MCSS, two training courses for 60 leaders of mwethya groups have been held.

The training content has tended to be fairly general with a focus on group organizational techniques and leadership skills. The CDO also assists in the organization of water user groups for both the MA&LD and MOWD water projects through the holding of barazas or meetings which are meant to explain the roles of water user groups.

Through the Adult Education Office of the MCSS, literacy courses are held for mwethya groups. There appears to be an emphasis on making this training as relevant as possible to the lives of the rural women. In addition, various types of educational materials are being prepared for use by the mwethya

v/

groups. It is hoped through this program, that mwethya group members and others will become more aware of their important role in the implementation of the program.

2. Factors influencing the use and availability of inputs and achievement of project outputs

--conflicts over labor allocations amongst various activities

The labor input required by the mwethya group varies according to the type of activity that is being performed. Generally, groups work several hours one day per week on the communal activity identified by the group. However, the smaller group may also be part of a larger group which also requires one day of work.

The women members of mwethya groups have many competing demands on their time. Although the major labor constraints are seasonal in nature, the multiple roles of women in the farming system require substantial inputs throughout the year. Women generally have responsibility for caring for the family, hauling water, gathering fuel wood and working on the fields. They may also be involved in other income-generating activities such as basket-weaving or marketing foodstuffs at the local market. Labor is particularly scarce during the planting seasons which occur during the months of March/April and October/November. This was very apparent in the last planting season when excellent rains occurred after several years of drought. At peak planting times, it is not expected that any additional time is available for the mwethya groups to participate in the various activities of the project.

Women may also be constrained in their use of inputs provided by the project because of the competing demands on their time. It has often proved more difficult, for example, for women to attend training courses that are not held close to their homes. If they do attend these courses, they need to arrange for their normal activities to be picked up by another member of the household.

Time is also a potential constraint to the mwethya groups' ability to use the inputs provided by the project. This may be the case for training, when competing household demands require a woman to stay at home to attend to her other chores.

It has been noted with reference to mwethya group participation on MOWD water projects, that their lack of time commitment to the completion of the activity was often seen as justification for employing casual laborers instead. However, project staff have pointed out instances where several mwethya groups have rotated schedules so that at least one group would be available to work every day.

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--lack of supervision

It has been noted in several of project progress reports that lack of supervision is a constraint which limits the ability and/or motivation of mwethya groups. Some of this may be due to lack of transportation for extension agents or conservation assistants particularly for those groups working in remote areas. In addition, problems of communication between site supervision water inspectors and mwethya groups have contributed to a lack of motivation on the part of the mwethya group members.

--conflicts over paid labor in MOWD projects

Conflicts have occurred with regard to the use of paid versus unpaid labor in projects initiated by the MOWD. The traditional practice within the MOWD has been to use paid laborers. On sites where paid labor was being used prior to the project, it was apparently difficult to get mwethya groups to agree to participate as unpaid labor. This has not been the case on newly initiated projects where it was made clear from the beginning that mwethya group labor input would be used primarily, with only skilled workers being paid. When possible, the project hopes to replace paid laborers with mwethya groups on all water projects.

It has also been noted that there is misunderstanding between the local people and the project implementation officers. The negative attitude on the part of these officers towards mwethya groups has constrained their participation in the project activity.

--delay in provision of inputs

There has been some problem with regard to the timeliness of the provision of inputs to the groups. When the inputs are not received, the groups are sometimes idle waiting for their arrival. This has been the case for cement. There also have some problems with the availability and timely delivery of soil conservation tools. While some groups have been able to provide tools to each of their members, others have only been able to supply some of the members.

--lack of adequate funding

Members of mwethya groups are often responsible for providing funds to the group in connection with a particular construction or maintenance cost. In addition, groups may be called upon to provide funding for transport to training courses, for example. A lack of funds can be a constraint on their willingness and ability to attend a course.

PROJECT IMPACT

Project beneficiaries

The principal direct beneficiaries of the Kitui ASAL ✓
Project are women. Mwethya groups are the main beneficiaries
of the following components:

- soil conservation
- afforestation
- crop development
- water conservation and development
- apiculture
- community development
- adult education

Eighty percent of the membership of mwethya groups is female. The only project activities which are directed to other categories of beneficiaries are range management, goat improvement, fodder seed bulking, pilot dairy pre-extension farms and village polytechnics.

The indirect beneficiaries of the project are the families of mwethya group members. They benefit from:

- increased value of land (through soil conservation, terracing and afforestation);
- increased water supply for human and animal consumption (and possibly better health);
- increased food supply and crop yields (through terracing for better water utilization, crop trials and extension packages and reduction of labor bottlenecks for production).

Downstream benefits such as increased incomes (from the sale of crops, goats, milk and honey) and better nutrition (from increased production of crops, meat, milk and honey) will only materialize at the project's completion. Even further downstream are the consumers, who are expected to benefit from increased food availability and wider variety of foods.

Benefits and beneficiaries: soil conservation and afforestation

Benefits - From mwethya group members' own perspective, the main benefit which they received from terracing and afforestation is better use of existing rain water for crop production. In a few catchments, terracing is also expected to have a major impact on the seasonal flow of water in streams and reducing siltation of dams. A lesser priority was to

increase the value of their land, terracing and planting valuable trees. Reduction of soil loss was less important from farmers' point of view than water supply and increased productivity.

Beneficiaries - Benefits accrue to the owners of land on which soil conservation works are carried out. The main beneficiaries of the terracing were women, since most of them farm with little or no male assistance and most of the responsibility for growing food for the family is theirs. Insofar as terracing and improvement of vegetable cover improves water supply in streams and dams, women are also the main beneficiaries because this reduces the time they must spend fetching water from distant sources.

Mwethya group members work in rotation on one another's land. There was no evidence that works are undertaken primarily on the holdings of the more influential members of the community. All members' farms eventually receive soil conservation treatment. The project uses technical criteria to determine where to begin works rather than responding to the pressure of leaders to terrace their land first. Nevertheless, it is inevitable that the benefits accruing to individual landowners are proportional to the size of their holdings.

The prospects for sustaining benefits from soil conservation works appear good. Farmers have a direct interest in maintaining the terraces, once built, because this allows them to make better use of run-off water for crop production. Research trials conducted by the project showed a 20 percent yield increase on terraced land, but farmers own reports suggested a much higher increase.

Distribution of hand tools to individual group members will facilitate maintenance of existing structures, as well as continuation of terracing after the completion of the project.

The project experience with training of Conservation Assistants contains an important lesson. When it became clear that the GOK could afford to absorb the salaries of the persons trained in Phase I of the project, an alternative solution was found. MALD is now training group leaders directly, so that they can lay out terraces on their own, without having to rely on a weekly visit from Ministry of Agriculture extension worker. This reduces the demands on extension workers' time, minimizes transport costs, and greatly increases the groups' autonomy and self-reliance. This training appears to be a key activity in support of sustainable progress in soil and moisture conservation. It needs to be institutionalized and extended to all groups involved in soil and water conservation activities.

Benefits and beneficiaries: crop development

✓ Benefits - In the original project design, the emphasis of the crop development component was on environment protection through improved tillage and ex-drawn implements. As actually implemented, the project has emphasized increased production through increased reliability of yields under low rainfall conditions. A secondary emphasis is on reduction of labor bottlenecks inhibiting production. Environmental preservation, in itself, is lower on farmers' own list of priorities.

Because of the long gestation period of adaptive research, it will be several years before the benefits of this component are extended to farmers. For the benefits to be sustainable, the following steps are needed:

- development of crop recommendations based on trials,
- adoption of ASAL recommendations by the MALD extension service,
- outreach to farmers through the T&V system,
- multiplication of suitable planting material, for distribution to farmers.

✓ The World Bank/IFAD extension project has greatly increased the mobility and supervision of agricultural extension workers. However, it has no built-in mechanism for (a) developing appropriate technical packages or (b) multiplying planting material. This is where project research trials and bulking activities can be catalytic.

✓ Beneficiaries - Although the T&V system has proven a cost-effective way of reducing the overhead cost of delivering agricultural extension to large numbers of small farmers, it has been widely criticized for focussing too many resources on the contact farmer (often to the detriment of other extension group members). The weakest link in the system is the relationship between the contact farmer and the other members of the extension group. Because contact farmers tend to be better-endowed with resources than the average farmer, the system has a built-in bias against the poor.

In addition to its bias against the poor, the system has been widely criticized for its bias against female farmers. Contact farmers are almost inevitably selected from households where the husband is a full-time farmer. Female contact farmers are rare. When extension groups are formed at the beginning of the projects, female farmers tend to be left out. Statistics available for several African countries suggest that

even in areas where most men are involved in migration or off-farm work, only 10 to 15 percent of the members of T&V groups are female farmers.

In order to correct the bias in the classic T&V system, modified T&V systems have sometimes been introduced on a trial basis. A promising experiment involves the utilization of existing village groups (male and female) as a low-cost alternative to organizing new groups around the contact farmer. The village extension worker contacts the entire group directly in a single place, instead of working individually with the contact farmer.

According to the original World Bank/IFAD design, direct contact with existing village farmers' groups was to be the main vehicle for extension delivery, but when T&V was first introduced in Kitui District, the classic T&V approach of contact farmer and follow-up farmers was adopted.

Interviews in Kitui District revealed that 15 percent of the agricultural extension workers in the district are female but both male and female extension workers concentrate on contact farms where the man is a full time farmer. These farms are highly anomalous, given that 60 percent of the farms in the district are managed by women and they tend to be better endowed with land, labor and cash than other households, as confirmed by farm management survey conducted by ASAL. The survey also revealed that the classic T&V approach is not working in its outreach beyond the contact farmers to average farmers: 79 percent of the contact farmers were visited one or more times during the fortnight preceding the survey but 52 percent of the follow-up farmers did not attend even one T&V demonstration.

In view of the poor turnout of follow-up farmers at T&V demonstrations, the Provincial Agricultural Officer recently decided that in all Districts including Kitui, an unspecified number of contact farmers will be substituted with mwethya groups, on his own initiative. According to him, this is the most cost-effective and efficient way of reaching the largest number of farmers with the lowest overhead cost.

Mwethya groups will also be the main beneficiaries of planting material from the project bulking site and ox-drawn implements designed to reduce bottlenecks in weeding.

Starting the next season, mwethya groups will be direct extension beneficiaries. They will make demonstration plots on their own farms and carry-out on-farm trials. This should go a long way toward reducing the risk that extension recommendations will be suited only to the better endowed farmers.

Starting the next
season, the
Agricultural
Division
Office in Mwingi
has already
started
extension
contact
directly with
mwethya
groups

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Benefits and beneficiaries - water conservation and development

✓ Development thinking tends to separate development of water for agriculture from water for domestic use. The former is seen as "productive" investment and the latter as "social welfare" expenditure. The debt crisis faced by many countries has forced them to abandon the "basic needs" approach to development in favor of "economic efficiency". ✓ Investment in drinking water supply projects has often received a lower priority in comparison with investment in irrigation.

The lesson learned from the Kitui ASAL project is that this dichotomy between drinking water as "social welfare" and irrigation water as "productive" investment is based on false premises. In Kitui District, one of the main bottlenecks for agricultural production is lack of water for domestic use.

- 48 percent of the households in the project area walk over 5 miles round trip to the nearest dry season water source;
- 47 percent live on under 5 litres a day per person during the dry season (in contrast with USAID guidelines for water projects, which consider 20-40 litres as the bare minimum required for adequate hygiene and health);
- 41 percent wait an hour or more at the source for their turn to fill their jerry cans.

~~In an area where 60 percent of the farmers still prepare their land by hand, only 19 percent of the farmers reached by the T&V system is reaching farmers who are better-endowed than the average farmer.~~

Site visits to water conservation and development projects of both MALD and MOWD revealed that during the dry season, most nearby water sources for both humans and animals dry up. Women are therefore forced to spend from 8 am until noon or later making a daily trek to fetch water from the nearest dry season water site. This leaves relatively little time available for farming.

At the onset of the rains, the timing of agricultural operations is critical. Late planting is the largest single cause of low yields. As soon as the first rains soften the hard soil, farmers should begin ploughing and planting to catch the full benefit of the heavy November rains.

The October rains are too light, however, to fill up wet season water points. Right at the time when they should be

✓ working full time on the shamba, women's time continues to be constrained by their need to fetch water from distant water points.

At the onset of the rains, oxen are weak due to depletion of grazing areas. They are also weak because dry season watering points are so far away that most households only drive them to the source once every two days. When the water point is four kilometers away, the drive takes half a day. When it is farther, it can take the whole day. This aggravates the labor bottleneck at the onset of ploughing season.

Until these bottlenecks are relieved, women will not have enough time to raise production in agriculture. This alone explains why women are so willing to devote free labor to construct dams and catchments.

Benefits - From women's point of view, closeness of the source is the first priority. Reliability of the source is the second priority. Water quantity comes before water quality. Cost of users' fees has no effect on preferences. ↩
(Socio-economic survey - Water Feasibility Study).

Even before ASAL, mwethya groups constructed and repaired rock catchments and dams on their own initiative. Instead of charging a water users' fee on a regular basis, they would organize to take up a collection from all households using the water source periodically, when materials and labor were needed to seal a leak or to remove siltation. The fact that they were able to do this without project assistance argues strongly that they will be able to sustain benefits after project completion.

The project is currently testing whether ox-drawn scoops can be used for dam desilting as an alternative to reliance on AMC bulldozers. Several ox-scoops have been distributed to mwethya groups. If successful, this initiative could increase the groups' self-reliance and ability to maintain earth dams without outside assistance.

Strengthening of mwethya groups and water users' organizations for the maintenance and repair of water points means lower recurrent costs for the GOK and the District as well as more timely intervention for the benefit of users.

✓ Time-savings for women are influenced mainly by the distance and the waiting time at the source. The latter is greater when only one user can draw water at a time (as from sand pits and shallow wells). The amount of time required for construction and maintenance should be factored in.

Interviews with users at various project sites suggest that the greatest impact on labor bottlenecks occurs when a year-round water source is constructed where previously there was none. When users can make the round trip in one hour instead of four, time savings can be easily quantified. Time savings are much more difficult to quantify when an existing source is merely enlarged so that it will catch and hold more water. In this case the best indicator may be the change in the number of months that a source can be used before it dries up.

Health benefits were difficult to evaluate. In accordance with the users' own priorities, the project has emphasized quantity and reliability of sources more than water quality. The main improvement in quality has come from fencing existing sources intended for human use, to keep out donkey droppings.

Beneficiaries - The main beneficiaries have been water users' committees, composed of several mwethya groups which share a common water source. The project has enabled them to develop their own water resources more efficiently, by providing hand tools (for MALD projects), cement and technical advice. MOWD projects tend to be more materials-intensive than MALD water projects and to require more supervision for the construction.

The beneficiaries of paid employment of MOWD projects have all been men. MALD projects do not use paid casual labor .

The elected officials of water users' committees are invariably men, although the officials of the single mwethya groups which are involved in the construction work are women. Eighty to ninety percent of the members of the group are women.

✓ Whatever the sex-composition of water users' committees, the principal benefits accrue to women between the ages of 15 and 59, because of their responsibility for hauling water. The time saved is used on the shamba, according to the women interviewed, for the benefit of their families. The benefits of having more and cleaner water accrue to all household members, while time savings accrue mainly to women. If boys have been involved in driving livestock to distant water sources, the development of closer sources reduces their work burden as well.

Benefits and beneficiaries - livestock development

Mwethya groups are the main beneficiaries of the project's apiculture activities. The project initially intended to set up 22 apiculture demonstrations on individual farms, but mwethya groups were found to be a more efficient receiving

mechanisms for two reasons. The groups were more conscientious in their care of hives and through groups more households could be reached at a lower cost per household.

While the income-generating potential of bee-keeping appears quite attractive in relation to the low labor input required (a half hour per day), so far the actual income generated during the first season has been very low. As group members learn to deal with problems such as honey badgers and low occupancy hives, the income generated is expected to increase.

None of the other livestock components have women as the main beneficiaries. Grazing management extension focuses on cooperative ranches as a low cost way of reaching many producers simultaneously, but the other components target benefits to individuals. Mwethya self-help labor is sometimes used in constructing cattle dips. Women also manage goats and feed and milk dairy cattle, but there is no explicit attention in reaching them in these sub-components.

Mwethya groups' willingness to invest their own money in the purchase of additional improved beehives suggests that project efforts to expand honey production have a strong chance of becoming sustainable. Groups' experience suggests that they will need a lot more training on what to do about low occupancy, predators and harvesting before these projects will really be income producing.

Benefits and beneficiaries - community organization and training

The main objective of the community organization and training component, as expressed in the revised project paper, is to strengthen local capability for mobilizing self-help efforts in support of project activities relating to soil conservation and water development. The principle thrust is community development: registering mwethya groups, training group leaders and organizing water users' committees around water supply projects. This is complemented by parallel efforts to integrate ASAL project messages in adult education activities. A small ~~sub-component~~ ^{sub-component} involves training youths at village-polytechnics to produce inputs for project activities (bee hives, ox-drawn implements).

Community development and training is therefore an end in itself, as well as a means for the achievement of other project objectives. The direct benefits and beneficiaries of each sub-programme are outlined schematically on the next page.

Benefits - At the time the project was formulated, there were 2,700 functioning mwethya groups in the project area. These groups were already involved in soil and water

conservation activities, entirely on their own initiative. The Ministry of Culture and Social Services Community Development Assistants were supporting these activities by registering groups and organizing one-day training sessions for group leaders. Group mobilization, in itself, cannot be attributed to the project.

The principal contribution of the project has been to intensify the Community Development Assistants' catalytic role in linking existing self-help efforts to project resources. This has been achieved by organizing a series of three-day training courses to inform group leaders what resources are available from the project and how to obtain them for their members. This includes technical advice in terracing, construction of rock catchments, as well as material inputs such as tools, cement, seedlings and skilled labor. Leaders learn to keep records of group activities. They are encouraged to share their experiences with other groups and to identify common problems.

Beneficiaries - The direct beneficiaries of leadership training are the leaders of mwethya groups. Although 90 percent of the elected officials of mwethya groups are women, 48 percent of the participants in MCSS workshops for group leaders are men, and only 52 percent are women. Although extension of the training from one to three days, with food and lodging provided by the training from one to three days, with food and lodging provided by the project, is reported to have greatly increased the amount of information which the participants are able to assimilate, women have difficulty arranging to leave their families and farms for three days at a time. Lack of time, family responsibilities and lack of money for transport are the most common reasons for lack of participation.

Adult education - Even before the project, adult education courses were organized by the MCSS Adult Education Assistants throughout rural areas. Their aim was to teach people to read. As a result of the ASAL project, agriculture, soil and water conservation, goat production and bee-keeping have been introduced for the first time as subject matter for adult education. Women's increase in the training has greatly increased as result of the new focus.

The classes are held continuously throughout the year, but enrollment fluctuates. At any given time, there are between 9,000 and 12,000 persons enrolled. Only about 100 of these are men. Mwethya groups serve as the receiving mechanism.

Registration of mwethya groups and training of group leaders promises to make a major contribution to sustaining project benefits in all areas. The training is designed to

inform leaders of what resources are available from the various ministries through the ASAL project, and to teach them how to make use of it. Even when the project ends, leaders who have acquired these skills will be better placed to link their groups with outside resources.

One of the strongest felt needs of group leaders, as expressed at the Mwingi workshop for leaders, is more technical training in soil conservation, goat production, apiculture, crop production and maintenance of water points. Although these topics were covered briefly in the three-day training course, leaders feel that they need more practical training to be able to assist their members when problems arise. This would save them from having to call in someone from the extension service every time some minor difficulty arises. Since these extension workers have heavy demands on their time, and limited transport, they are often unable to intervene in a timely way. In the meantime, animals die because of disease or hives are looted by predators, resulting in a loss of income as well as low morale among group members. This seems particularly important for animal production and apiculture.

Conclusions

✓
✓ Out of a total of 2,768 registered mwethya groups active within the project area, MCSS estimates that the project is currently reaching about 60 percent. In numerical terms, the greatest outreach is through tool distribution in connection with MALD soil and water conservation activities. Project records show that hand tools have been distributed to 1,000 groups on one occasion, 600 on another and 300 on the third occasion. However, it is known that some of these groups first received a small package of tools (adequate for one third of their members) and first time, and a larger package the second time. Therefore the total number of groups benefitting from tool distribution is considerably less than 1900 (which would have been 70 percent of the total).

The number of mwethya groups benefitting from MOWD water conservation and development activities is more difficult to estimate. During the life of the project, MOWD expects to complete 52 water projects. The water users' committees formed around each project are made up of five mwethya groups on the average for larger works, and one or two groups for shallow wells. It is expected that approximately 200 mwethya groups will be assisted. The project has received a list of 193 water projects started by mwethya groups which the project might consider assisting if it were extended beyond 1986. The DDC has submitted a list of 52 additional projects and 413 wells to ASAL for future consideration. These figures suggest that the project is currently able to satisfy only a fraction of the grassroots demand for water development.

Of all project components, the outreach to mwethya groups is smallest in livestock development activities. Hundreds of groups have registered for bee-keeping activities, but the project is currently able to assist only ten of them. As many groups are registered for goat keeping, but at present the project is not reaching them.

The MCSS has trained 120 mwethya group leaders to date. Within the life of the project, a total of 360 group leaders will be trained. This represents 13 percent of the 2,758 mwethya groups active in the project area. There appears to be considerable potential for expansion to additional groups in the future.

Similarly, out of 150,000 illiterate adults in the project area, the adult education programme is able to reach 9-12,000 at any one time (or 7 percent of the total). The demand is greater than the supply of teachers and heavy reliance is currently being put on part-time teachers.

In conclusion, the ASAL project is benefitting a considerable number of mwethya groups, but is unable to satisfy the demand for assistance that is rising from the grassroots level within the short period of time allotted.

Possible causes of project success or failures

The key to the actual project strategy is mwethya groups, as a labor input for works, as a receiving mechanism for technical guidance, training and materials, and as ultimate beneficiaries. Almost by chance, the project staff found that this was a convenient mechanism which it could plug into when the GOK's financial crisis forced them to look for cheaper ways of delivering services to small farmers.

Likewise, it was purely by chance that women became the main beneficiaries of the ASAL project. Or rather by force of circumstances. Women were the farmers, the water haulers, and the main source of initiative for self-help activities. They were there; they were organized; and it was relatively easy for the project to make use of them.

The project organization and management structure could be depicted as an upside-down pyramid. A whole series of different ministries (MALD/agriculture, MALD/livestock, MOWD, ✓ MENR, and MCSS) channel services to a single grassroots receiving mechanism--the mwethya group. The Community Development Assistants of the MCSS function as catalysts, linking groups to services.

The adequacy and timing of resource delivery could have paralyzed the project if reliance on outside inputs had not been reduced to a bare minimum. Most of what has been

accomplished has been done by the mwethya groups themselves, with very little contribution from government. This low-input approach has good prospects for being sustainable.

Participation and resource commitment on the part of the direct beneficiaries--mwethya groups--has been the key to achievement of project targets. This support has been forthcoming because the works themselves, particularly in the area of water development, are of vital interest to the very people who are supplying the labor .

As suggested above, women are the principal beneficiaries of the ASAL project not by design, but by force of circumstances. The lucid discussion of the role of women in the Social Soundness Analysis was hardly reflected in the original project paper. Nevertheless, this lack of attention to women as anything more than a source of labor for soil conservation works overcome because the implementation process was sensitive to local realities.