

ECOGEN CASE STUDY SERIES

**From Cattle To Coffee:
Transformation in Rural Machakos**

**Isabelle Asamba
National Environment Secretariat
Government of Kenya**

**Barbara P. Thomas-Slayter
International Development Program
Clark University**

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ECO



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Ecology, Community Organization and Gender (ECOGEN) is a joint project of Clark University and Virginia Polytechnic Institute and State University established for the purpose of examining the role of gender in rural livelihood systems.

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Indeed, we can learn from the people of Mbusyani and Kyevaluki who more frequently than not demonstrate energy and good cheer in coping with difficult circumstances. They also offer extraordinary courtesy and hospitality to the newcomer in their midst. To all who gave their time and thought toward meeting the objectives of this study, we extend our warmest thanks and appreciation.

Isabelle Asamba and
Barbara Thomas-Slyter

Foreword

Understanding rural livelihood systems is central to policy formulation and program and project design for sustainable resource management. This case study of Mbusyani and Kyevaluki Sublocations in Machakos District offers insights into rural communities in a semi-arid region of Kenya. Its four objectives are to understand:

- * the impact of **gender roles** on rural livelihood systems, and particularly the ways in which gender roles and responsibilities affect the sustainable management of natural resources at household and community levels;
- * the responses of **local communities** to changing resource conditions with emphasis on understanding community-based institutions and leadership;
- * the **impact of these responses** on food production, on resource degradation, on employment opportunities, and, broadly, on the prospects for sustainable development;
- * the **relevance of the findings to policy-making** for rural communities and sustainable management of resources.

Mbusyani and Kyevaluki were selected for this case study for several reasons. First, they are **adjacent communities in a semi-arid region of Kenya** in which Kenya's National Environment Secretariat and Clark University have carried out Participatory Rural Appraisals (PRAs) in 1988 and 1989 with multiple return visits to the two sublocations. Thus, there is an accumulation of knowledge and information about the area. They also provide an opportunity for the researcher to consider, in depth, the resource problems within rural livelihood systems in a landscape typical of much of Africa, not just Kenya.

Second, **Mbusyani and Kyevaluki face similar, but not identical, resource issues.** Among these challenges are a degraded resource base, pressures on the land from a rapidly growing, primarily agricultural, population; water scarcity; inadequate employment opportunities, a lack of fit between labor needs and labor allocation derived from the gender-based division of labor; food shortages, increasing stratification, and a vicious circle of poverty. Many of these problems seem to be escalating, and community as well as national responses are urgently needed to address them.

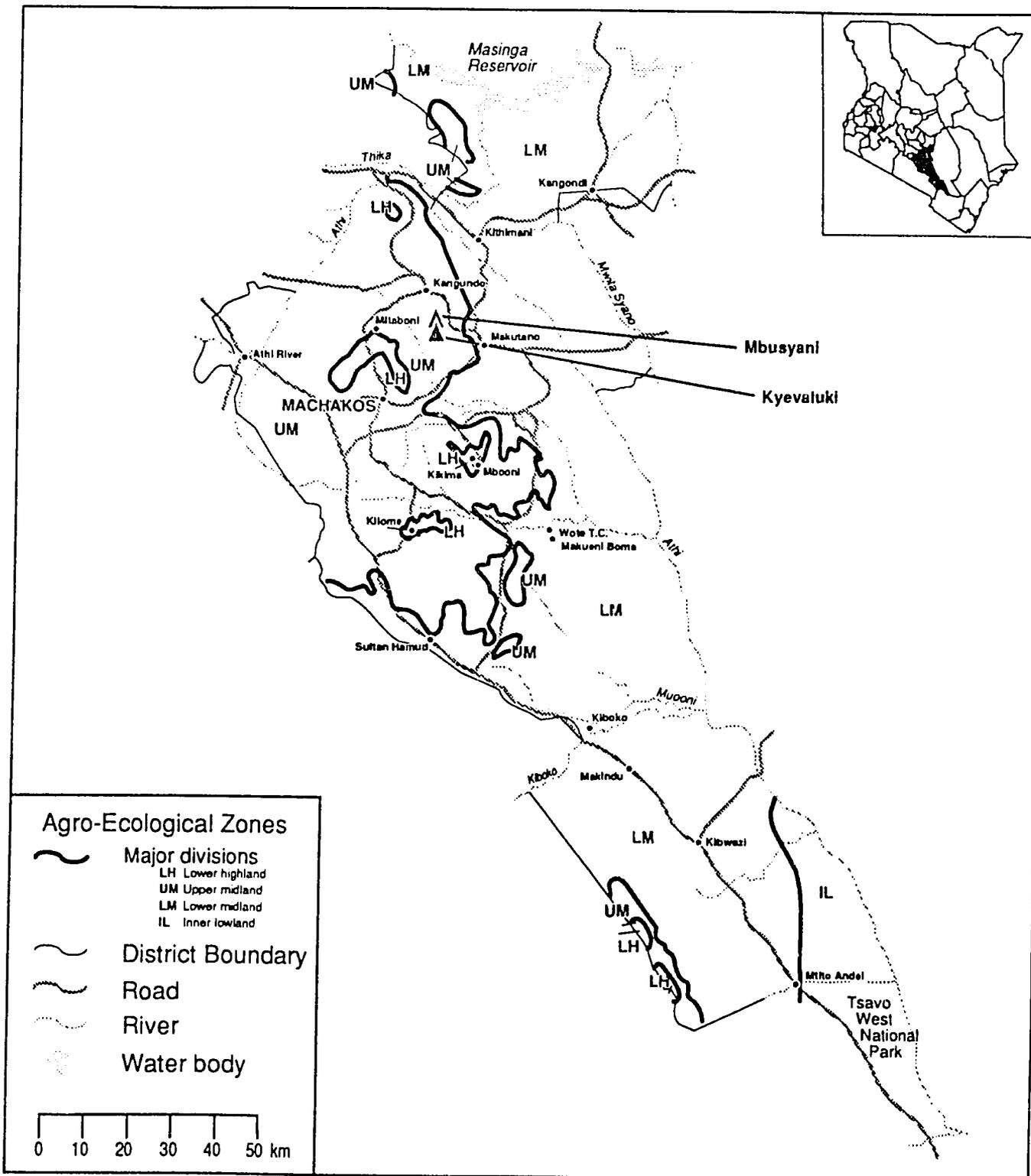
Third, the PRAs revealed important differences between Mbusyani and Kyevaluki in the ways in which households and community organizations were responding to resource concerns. Given the magnitude of Kenya's resource management needs, particularly in

semi-arid regions, it is relevant to both NES and Clark University to explore the sources of these differences. Understanding them might help to identify some of the key elements in sustainable management of resources.

This case study:

- * offers insights into the **interactive processes involving community institutions, gender roles, resources, and the environment;**
- * examines these two communities, focusing on some of the **differences in community responses** emerging in Mbusyani and Kyevaluki;
- * analyzes the key ways in which people in these two communities are **managing the particularities of their local production system** and their immediate environment, using gender roles as a key variable;
- * incorporates analysis of the **larger social, political, and economic contexts** which shape the lives of Mbusyani and Kyevaluki residents;
- * considers the ways in which **development policies and programs can be strengthened** by incorporating gender analysis into natural resource planning and management.

Figure 1. Map of Machakos District*



* Source: Jaetzold and Schmidt, 1983.

I. The Principal Findings

A. The Dynamics of Rural Transformation

1) **The magnitude and rapidity of change in Mbusyani and Kyevaluki are extraordinary.** While appearances may suggest otherwise, the reality is that life has been transformed in the course of a generation along every dimension imaginable. At the core of these changes lie new modes of livelihood. The title of this case suggests one: from cattle to coffee. No longer do farming families keep large herds of cattle; rather, almost all struggle to earn a cash income from coffee grown on land only marginally suitable for its production. The privatization of land, the loss of communal lands, the increasing number of land sales, the pressures to get jobs and earn money, and a growing gap between rich and poor are all aspects of this transformation. It entails significant modifications in responsibilities for both men and women as they struggle to secure a livelihood for their families.

2) **Mbusyani and Kyevaluki are at different points on a spectrum in regard to the changes taking place within rural Kenya.** Mbusyani is probably a generation ahead of Kyevaluki in terms of the transformation from a cattle-keeping, agro-pastoral society to one of agriculturalists, heavily reliant on a cash crop and well integrated into the cash economy. The different levels of activity among community organizations as well as divergent leadership styles reflect the conditions existing within each of these sublocations. These subtle, yet critical, **variations in leadership and**

in the functioning of community organizations shape and direct differing momentum and outcomes for resource management and development activities within these two communities.

Mbusyani and Kyevaluki are at different points on a spectrum in regard to the changes taking place within rural Kenya.

3) **The residents of Mbusyani and Kyevaluki face changing sets of norms and expectations.** Gender roles are becoming somewhat more fluid as men migrate for jobs and as women join the ranks of the educated. In these communities, there are many fragmented families as husbands, sons, and daughters, though particularly men, seek employment elsewhere. Many note a gnawing concern about the numbers of children growing up within those communities for whom there will be no land, and for whom they fear there will be no jobs. Yet people are aware of new opportunities as well as challenges. Their attitudes reflect, among other things, changes in both generational and gender perspectives on rights, obligations, and accepted behavior patterns.

4) Finally, the most notable trend for these sublocations is the inexorable way in which they

are being drawn into and affected by the broader political and economic systems. No longer are these relatively isolated and self-contained communities able to feed themselves and manage their own affairs without concern about the outside world. Government intrusion began in the colonial era. Economic as well as political intrusion now comes from far beyond the capital city. Ironically, as they move from cattle to coffee, the vast majority of households are being integrated into those larger systems on terms which are disadvantageous. Many are becoming more dependent and less self-reliant than in times past and the impact on food production and resource sustainability has largely been a negative one.

B. Gender and Resources in Mbusyani and Kyevaluki

1) Evidence from Mbusyani and Kyevaluki indicates that **men's and women's roles are changing in the direction of greater flexibility**. Yet, there is a **growing disjuncture** between changing responsibilities and work load for women and their legal status. Cultural, social, and economic practices are adapting to the reality of male out-migration and the exigencies which many households face. **The legal system, land tenure, and other regulations have not modified accordingly**. A woman's livelihood and that of her family depends on the land, yet insecure land tenure and lack of rights and control of land characterize a woman's legal relationship to the land.

2) **Privatization of land** has led to the transfer of virtually all common lands to private

ownership and a widening rich-poor gap within these communities with enormous **implications for the work load, responsibilities, and levels of deprivation of women and their families, especially in the poorest households**. It is these households which have particularly relied on access to common forests and fields for food, fuel, and fodder.

3) **Water is widely perceived in both communities as the critical resource issue**. In the dry season women may spend as much as three to four hours on a daily basis walking and queuing for water. In addition, **access to fuelwood is a rapidly escalating problem**. For both these resources, awareness of shortages and problems by community members is acute; household and community action of a preventative sort has begun in Mbusyani and, so far, is minimal in Kyevaluki.

4) **Changing economic and resource conditions have significantly increased women's work loads, yet most women have neither the support structures nor the skills for dealing with them**. The burdens on Kenya's rural women, as observed in Mbusyani and Kyevaluki, are substantial. They come with considerable cost to the well-being of both the women and their families.

5) **Attention to gender roles, community organization, and the effective management of natural resources can help improve conditions for these rural households**. Analysis of the changes which have come - and continue to come to Mbusyani and Kyevaluki - illuminates the ways in which national and international governments and development agencies may contribute to this process.

II. Methodology

Several methodologies have been used to carry out this case study. First, the Participatory Rural Appraisals conducted in these sublocations in 1988 and 1989 required a variety of data gathering techniques (NES, et al, 1989). Among them were spatial methods such as the village transect or mapping farms, methods focused on time-related data such as establishing time lines or preparing seasonal calendars, and those focusing on social data such as household interviews and group meetings to discuss the institutions within the community. Technical data regarding water sites, or materials needed for construction, were gathered with the assistance of technical officers.

While PRA as a methodology is not yet fully adapted to gathering gender-differentiated data, some of the techniques are readily modified for that purpose.

While PRA as a methodology is not yet fully adapted to gathering gender-differentiated data, some of the techniques are readily modified for that purpose. The seasonal calendar, for example, offers opportunity to ascertain women's as well as men's agricultural labor responsibilities. The group meetings can provide opportunity to meet with women independently. Despite this

potential, the PRAs conducted in Mbusyani and Kyevaluki in 1988 and 1989 did not have a specific gender focus. Researchers exploring ecology, community organization, and gender in 1990 compensated for this orientation in their choice of methodologies.

For the follow-up, data-gathering exercises in 1990, the field team used in-depth household surveys, drawing a stratified random sample from each of the sublocations and interviewing 4% of the total households in Mbusyani and 5% of the households in Kyevaluki. In all cases, an adult female in the household was interviewed. While life histories, as such, were not collected, researchers endeavored to capture the central elements of the respondent's life, as well as changes over time for her and her household.

A second method involved interviews with key informants, among them community leaders within both sublocations. Informants included people such as teachers, headmasters, ministers, women's group leaders, and government administrators. Not only were women included among the key informants, but questions pertaining to gender issues were asked of all of them.

A third method was a short, highly focused survey administered randomly to individual adults within the two sublocations.

Methodology

The survey questions addressed key observations from the interviews and household survey. Its purpose was to determine the nature, variability, and spread of some of our findings. This questionnaire was administered to 100 residents from different households in each of the sublocations, or 11% of Mbusyani and 12% of Kyevaluki's households. In addition, there have been follow up visits and other communications by both authors, subsequent to the

execution of the case study research, in order to pursue specific questions in depth with one or more residents of the community.

While these methodologies are not exhaustive, they give a clear picture of the changing resource, economic, and social conditions within Mbusyani and Kyevaluki. In particular, they have been focused so as to direct inquiry to gender-related rights, roles, and responsibilities in these processes.

III. Community Profiles

A. The Changing Resource Base

Like many "neighbors" Mbusyani and Kyevaluki have much in common, but there are also some subtle differences. The two communities are located approximately 90 kilometers northeast of Nairobi in Kakuyuni Location of Kangundo Division in Machakos District. The population of Mbusyani is approximately 7000 with 800 households and that of Kyevaluki 6915 in 1989 with 794 households. Mbusyani is 15 square kilometers (5.7 square miles) and Kyevaluki is nearly twice as large. The terrain is stony, the climate dry, and the land gently sloping to hilly. A tarmac road leads from Nairobi to Tala, but shortly thereafter it ends and the remaining 20 kilometers are on a dirt road traversing an occasional stream or rocky stream bed.

Mbusyani and Kyevaluki Sublocations lie in uppermidland agroecological zones 3 and 4. Zone 3 is characterized as a marginal coffee zone suitable also for maize, beans and pigeon peas. Zone 4 is suitable for oil seeds, sorghum and millet (Jaetzold and Schmidt, 1983: 158). Mbusyani is more favorably endowed with most of its terrain in zone 3, whereas the greater portion of Kyevaluki lies in zone 4. Fragile soils, eroded hillsides, and land only marginally productive are characteristic of many parts of both Mbusyani and Kyevaluki, particularly the latter. Rainfall is low and unreliable, with drought occurring in approximately one out of four years. Rainfall averages 800 to 900 millimeters in

Mbusyani and somewhat less in Kyevaluki.

Once these lands were considered suitable for cattle and were grazed by large herds belonging to the Akamba who reside in this region of Kenya (Munro, 1975). Decades of government regulations have limited the land available for herds, have enforced destocking, and have privatized land which had previously been common grazing lands. The residents of these communities can no longer afford to keep large numbers of cattle. Today these people gain their livelihoods through farming, yet the land they have access to use is ill suited for intensive cultivation (Silberfein, 1984). In particular, because of their desperate need for cash, farmers are struggling to grow coffee even though the land is not suitable for high yielding coffee production.

B. Stratification and Evolving Household Circumstances

Mbusyani and Kyevaluki, perhaps more than many parts of Kenya, reflect the inexorable pull of Nairobi's city life. The "up side" and the "down side" are experienced in a myriad ways by households in these communities. Buoyed by resources from family members working outside, some households prosper. Others, unable to gain a toehold in the cash economy, find the merest household expenditure an overwhelming burden. These households must deal on a daily basis with the exigencies of being desperately poor in an economy which increasingly functions through the

medium of cash. Local residents may become, on the one hand, creative at finding solutions to problems, and, on the other, mired in low-level and often ineffective patterns of economic activity.

What is particularly evident in these two sublocations is the growing differentiation among households. No longer is it possible to generalize about the nature of land holdings, the numbers of cattle, the magnitude of earnings from cash crops, or the likelihood that households will manage to feed their members in times of drought. Households vary substantially in the constraints they face and in the opportunities they perceive. These differences bear close attention for they constitute the framework in which the issues facing these communities must be addressed.

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It is possible to group the households in these communities into four broad categories: affluent (in the context of semi-arid rural Kenya), average, medium poor, and poor. In general, the more affluent households in both sublocations share two characteristics. First, they have outside, off-farm sources of income. These monies are most often from employment outside the local community from areas such as Nairobi, Machakos, or Mombasa. Sometimes,

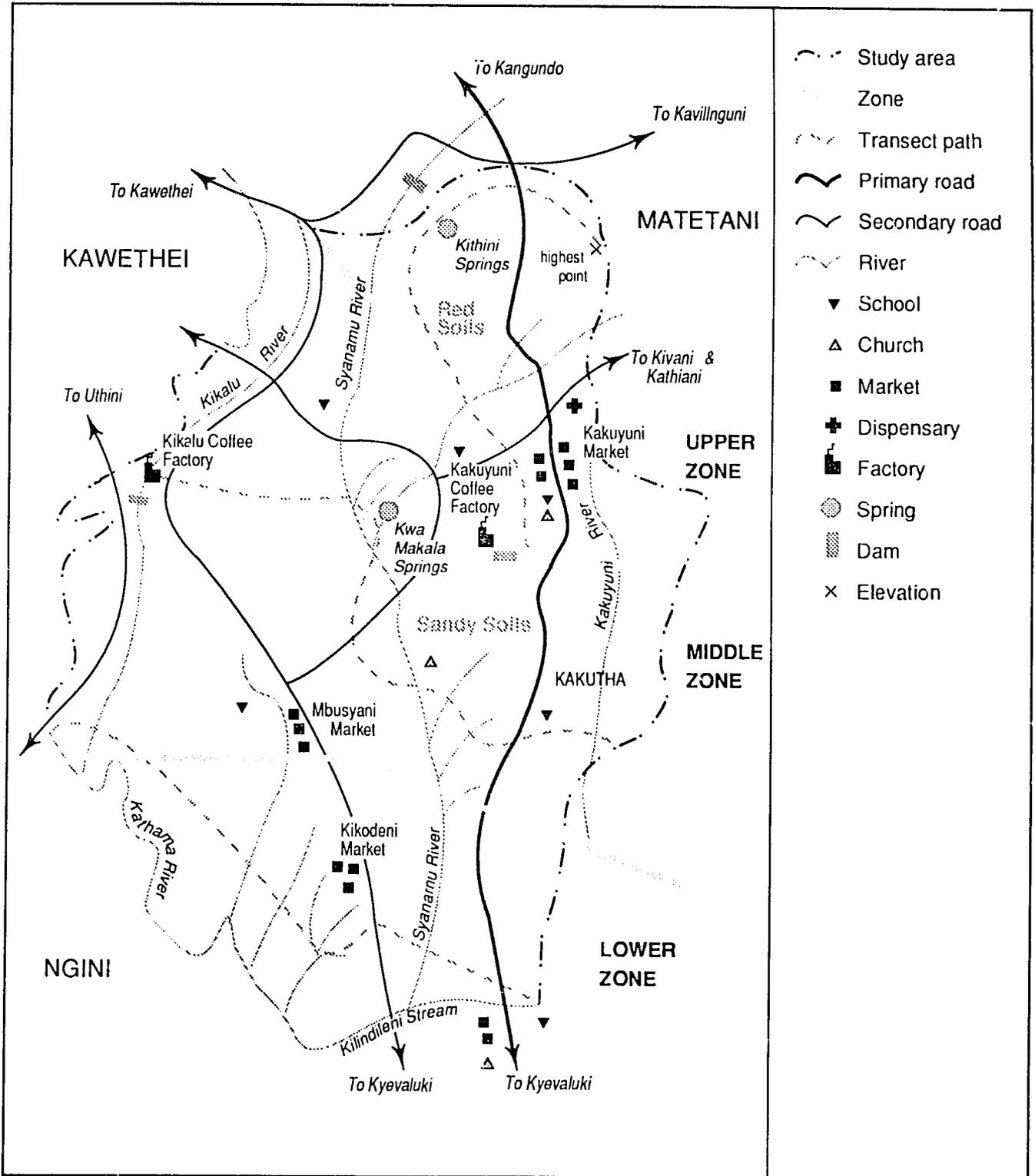
however, the source may be locally based, such as ownership of a duka or small shop, or a teaching position in a nearby school. The employment generates significant income for capital purchases and investment in educational opportunities.

Second, they have sufficient land which they are able to allocate both to cash and to food crops. Indicators of prosperity are found in the size of the holding, the size of the home, the use of iron sheets for roofing material, the number of coffee trees, the capacity to hire laborers, the existence of a roof-top water catchment tank, and children who are being educated outside the community. In addition, in Mbusyani, two or three cows (using zero-grazing methods) indicate wealth, while in Kyevaluki, these numbers tend to be higher.

The average household derives its livelihood from the land. Households experiencing "average" levels of well being always have enough land - at least for the time being - to support the families and to provide both food crops and cash crops. Typically, these households have between 400 and 700 coffee bushes bringing into the household (using 1990 figures) from Ksh 6000 (US\$300), the low estimate for Kyevaluki, to Ksh 14,700 (US\$735), the high estimate for Mbusyani. Most such households have no regular salary or business income. Some have occasional outside income or remittances from a relative who provides some support as it is needed or, more likely, as some surplus is available to him or her.

These households must deal on a daily basis with the exigencies of being desperately poor in an economy which increasingly functions through the medium of cash.

Figure 2. Map of Mbusyani Sublocation*



* Source: NES, et. al. 1990.

Profile of a Poor Household in Kyevaluki

Kita Wambua has five surviving children, the eldest of whom is now 20. Her biggest problem is obtaining school fees. To bring income, they have 16 coffee bushes planted on their two acres, but so far, these yield little cash. Plans to expand production to 100 plants are hampered by little opportunity to borrow or lease land which would extend their fields.

Mr. Wambua is unemployed, living at home, and does not seek casual labor. Mrs. Wambua engages in four kinds of activities to secure additional cash income. First, she sells bananas. Per year she takes about 20 bunches to market either to sell herself or to sell to a trader. She can earn Ksh 30 (US\$1.50) per bunch. Second, she makes baskets. She can make one per week for which she earns Ksh 25 (\$1.25). Her costs are Ksh 6 per one and one half basket. Her earnings from baskets are roughly Ksh 30 (\$4.00) per month. Third, she hires herself out as a casual laborer or on other farms. She can make Ksh 15 (\$.75) per day. In the dry season she works only four or five times per month. When the rains come she works every day. Last, she cuts firewood to sell, for which she earns Ksh 10 per bundle. The household has neither a cow nor goats. There are only chickens.

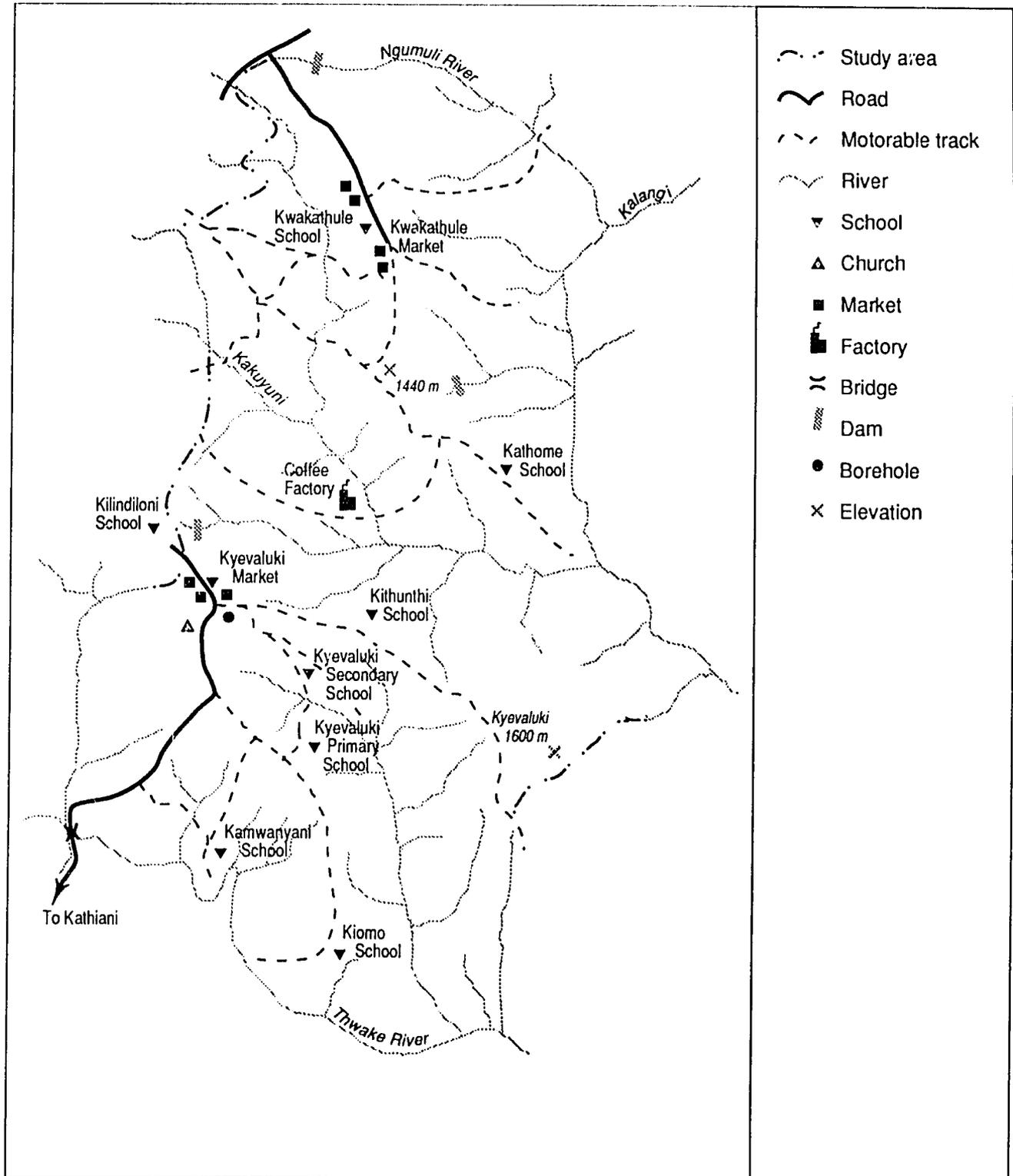
Mrs. Wambua worries because the land is small for the four sons who will be entitled to inherit it. Because of the high school fees (about Ksh 5000 or \$250 per student each year), she cannot afford the secondary school education which might give her sons other skills with which they could earn a living. The problems of insufficient land, inability to educate her children, and inadequate employment opportunities at any level are ones which she finds acute.

It is useful to make comparisons about typical household expenditures for which coffee returns and other cash income would be used. Most households consider school fees for their children to be a top priority. School is free, except for books, uniforms, and some building fund contributions, through standard 8. Secondary school is not free. For a Government or Harambee day school in an area such as rural Machakos, fees per year have been as high as Ksh 2400 annually. Fees for boarding schools have ranged from Ksh 4000 to as high as Ksh 10,000 for private schools depending on the location and quality of the school. The Ministry of Education is just now trying to standardize

fees for secondary schools at Ksh 1620 for day schools and Ksh 2460 for boarding schools. Even so, the average rural household in either Mbusyani or Kyevaluki would have a tough time educating several youngsters beyond primary school.

As for the **medium-poor**, these households function with four or five acres of land, little in the way of a cash crop, and little cash income which is usually based on the casual labor of household members. Typically, they have between 200 and 400 coffee bushes and feel constant pressure to move more land into coffee production in order to increase their cash resources.

Figure 3. Map of Kyevaluki Sublocation*



* Source: Field materials used for the Kyevaluki PRA in June, 1989.

The poorest households are often comprised of partial or fragmented families, widows, for example, or divorced women and their children, or young unmarried mothers and their children. The luckier ones manage on one-half to two acres of land. They may nod in the direction of a cash crop, but the returns are virtually nil. Others are virtually landless families. As one resident described it, "We have sold all the land around our house and now own only the house we live in." These households have no relatives who are providing even occasional financial support. They rely heavily on the returns from

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casual labor which average Ksh 20 or US\$1 per day. The work is, of course, seasonal, and their incomes highly unpredictable.

IV. Gender Roles and Livelihood Systems

Evidence from both Mbusyani and Kyevaluki suggests that men's and women's roles in the livelihood system are changing in the direction of greater flexibility and complementarity.* The changes are linked with a) the pragmatic requirements of daily life; b) new technologies; and c) the level of women's education. Men are being pulled out of the community by pressures to earn a wage, and, therefore, more burdens and responsibilities are, by default, placed on the women. These circumstances have ramifications both within the household and more broadly within the community.

A. Within the Household

While responsibilities for men and women in both these communities are changing, it is evident that **women have primary responsibility for meeting the family's basic needs for food, water, and fuel**, and the husband's responsibility is to provide the home and to generate sufficient income to pay for school fees and major capital expenditures.

The woman is the main producer of food for household consumption in Mbusyani and Kyevaluki, as in most of the rest of Kenya. Apart from this monumental task, the woman also attends to her traditional roles of child bearer and minder, housekeeping, water fetcher and fuelwood

gatherer. In Mbusyani about half the households are managed by women while their husbands are away working in other towns such as Nairobi or Machakos or perhaps seeking employment outside. This is an additional burden to the woman who then has the entire responsibility of running a household on a daily basis.

These responsibilities are complicated by the fact that many households have more than one parcel of land scattered within the sublocation. This is an important strategy for diversifying risk, yet the time spent to reach these parcels, which are often tiny, has a negative impact on labor allocation for food production. Some plots are as much as half an hour to 45 minutes away from the homestead.

Small, scattered holdings, insufficient agricultural yields for the family, and the poor returns on coffee force many women, as well as men, to seek employment as casual agricultural laborers. In Mbusyani and Kyevaluki about 40% of the men seek such work; among women, 40% in Kyevaluki and 24% in Mbusyani do so.

In times past, the households of Mbusyani and Kyevaluki had larger holdings, practiced patterns of shifting cultivation, and kept far more animals to provide milk and meat for the diet as well as fertilizer to increase the soil's productivity.

* The concept of "flexible complementarity," was introduced to the ECOGEN discussions by Dianne Rocheleau as a "central lesson" emerging from work in neighboring Kathama Sublocation, Machakos District in summer 1990, and is further elaborated in the Kathama case study (forthcoming in this series.)

Population pressures and the privatization of land no longer permit this system to function.

One consequence of these changing land use patterns is a food and water crisis which is directly linked to an environmental crisis of soil deterioration and deforestation. Women in both communities have to walk long distances in search of water during the dry season. With little natural vegetation and little afforestation practiced in the past, fuelwood is now a problem faced by most homesteads. For many women as much as 15 hours a week, depending on the season, may be spent on the two tasks of gathering fuel and water alone. No doubt it is due to this that women are increasingly aware of environmental issues and are willing to sacrifice time to protect natural resources and consequently the whole environment.

If they have sufficient land, men with no regular employment outside the farm concentrate their efforts on the cash crop (coffee). Men who do not have regular employment, will seek casual labor, for example, building terraces on other peoples' land. Both men and women comprise the labor force revolving around coffee production - manuring, pruning, picking, transportation to factory. It is unusual for men to work either on food production or on soil conservation. Women make up the main labor force in soil conservation work on the family's own land.

Many women are assuming new responsibilities because their husbands work outside the community. They may, for example, handle the arrangements with the coffee cooperative, including collecting coffee payments. They may also handle arrangements for hiring laborers for their farms. The exigencies of daily life simply

Producing Food in Mbusyani and Kyevaluki

The women work with rudimentary tools on land which is modestly productive. Very few households have access to sufficient amounts of land that they can use fallowing techniques. They are aware of the benefits of fallow land, but can no longer afford to do this because of the small size of holdings. They do rotate crops to improve productivity, and they do use animal fertilizers, although they have access to relatively little. Commercial fertilizer is obtained through purchases from the coffee cooperative and is used primarily for the coffee trees, not on food crops.

Most households do not produce enough food to sustain themselves and must purchase food for some portion of the year. The majority of households earn precious little from their coffee and have limited outside sources of income. In fact, only 42% of the respondents in Mbusyani and 26% of those in Kyevaluki indicated that their households benefitted from a major monthly cash contribution to household expenses. Food purchases and school fees are the two major allocations of cash income.

require that women step in and deal with new situations and new problems as they arise.

Management of cattle is also an arena of transition. In the past, men in this region took care of the herds of cattle. With the pressure for land

over several decades, and the shift to settled agriculture, coffee growing, and food production, men are no longer actively involved in livestock production. The cattle are increasingly being managed by the women.

Technology, too, is changing the customary allocation of responsibilities. Men have rarely engaged in fetching water; this is exclusively a responsibility for women and children who carry water containers on their heads or backs. Now however, in Kyevaluki where water sources are far, men sometimes get water for the household using donkey carts.

Finally, decision-making processes are altering. In the words of one woman, "In the past, women had no say in what decisions were made, but now I play a role even if it is only consultation." It is evident that the range of decision-making powers for women in this community, at this point in time, is great. Many women must ask their husbands for permission if they wish to cut down a tree, sell a goat, or undertake any noticeable change on the farm, however mundane. Others, however, have considerable authority to make decisions within the home, in regard to household resources.

Household interviews suggest that these changes are linked to the level of the woman's education. The more highly educated the woman is, the more likely she is to participate in major decisions affecting the household. For the most part, those women who had completed Form 2 through Form 4 expressed self-confidence about their roles within the home and the strategies for collaborative decision-making between husband and wife.

B. Changing Rights, Access and Control In Regard to Land

The woman's livelihood and that of her family depend on the land, yet insecure land tenure and lack of rights and control of land characterize their legal relationship to the land (Bryson, 1981; Guyer, 1984; Hunt, 1985; Davison, 1988). Historically, women have had use rights guaranteed to them by community tradition. With the privatization of land and the introduction of registration and land titles, these informal arrangements have no legal binding (Okeyo, 1980; Rocheleau, 1988a and b). Land is held in the name of the head of the household. In all but a few cases, this is the husband. If he should be deceased, his widow or widows may hold the title, but this is normally regarded as a temporary situation in which she is holding it in custody until her sons come of age. Few women own land registered under their own names. Those who do are usually widowed. Divorced women do not inherit any land.

The woman's livelihood and that of her family depend on the land, yet insecure land tenure and lack of rights and control of land characterize their legal relationship to the land.

Nzioki (1990:63) puts this situation starkly, "The new land reform has reduced the women to a state of dependency on those who control the land (the men) and this is very unfortunate particularly taking into consideration that they

provide the bulk of agricultural labour in the country." **Without ownership, women are unable to obtain credit for tools, equipment, and other inputs necessary to increase food production. Land is the only major resource and without land to serve as security in getting loans under current arrangements, women will have difficulty improving their agricultural output.**

For the most part, women in Mbusyani and Kyevaluki do not perceive that their customary rights are legally and formally non-existent.

For the most part, women in Mbusyani and Kyevaluki do not perceive that their customary rights are legally and formally non-existent. They have confidence in their status as wife in the household and in the fairness of their husbands in dealing with them vis-a-vis the land. It is only occasionally, as in the case of

divorce or conflicts with co-wives, that women indicated the allocation of land and their access to it was unfair. They also have confidence in the justice of an administrative system which would protect them should they need to approach the Assistant Chief for adjudication of a household land dispute. Most believed that they would be consulted by their husbands before land was to be sold. In cases where the wife is not consulted, the present day law allows the woman to request the Chief of the area to stop the sale.

In the past, women never had control of land. They have had management responsibilities for small portions allocated to them for production of food for the household. Now, however, many women are in charge of managing the farm. Ironically, the same woman rarely has control of the funds from cash crop production. Profits from the sale of coffee and cattle are largely controlled by men. On a regular basis, most women make decisions regarding small amounts of cash; the decisions on larger sums are made by the husband and, increasingly, jointly by husband and wife. Ultimately, however, ownership and control over land and its resources reside in male hands.

VI. Community Responses To Changing Resource Conditions

A. The Context

The institutions of Mbusyani and Kyevaluki reflect the changes taking place in this region as well as the subtle differences between the two sublocations. Within the last three decades, enormous changes have taken place in both these communities primarily through the privatization of land. These changes include 1) the transfer of virtually all common lands to private ownership; 2) a widening rich-poor gap within the community; 3) increasing male out-migration; and 4) an increase in the numbers of women functioning as de facto heads of household.

It is therefore not surprising that women are playing key roles in building community infrastructure. Specifically, to use Moser's terminology, the women have a triple role - productive, reproductive, and community management (1989:1). They are engaged in activities which improve community resource access and use and which provide new benefits to the households within the community.

More than that, women are building community organizations, some of which, over time, are becoming institutionalized and strengthening the institutional fabric of the local community. Although such organizations are prevalent in both communities, under the circumstances of less pressure on land and less male out-

migration in Kyevaluki, they tend to be a less widespread phenomenon there than in Mbusyani.

These are important changes, central to sustainable development at the local level. Up to now, development planners and NGOs have not fully incorporated them into their planning strategies. True, they have taken note of specific activities and have offered support for specific projects, but the overall scope and relevance of institutional change has not been grasped.

Women are building community organizations, some of which, over time, are becoming institutionalized and strengthening the institutional fabric of the local community.

B. Local Institutions

The household interviews, key informant interviews, and the survey reveal a range of institutions and organizations operating within both communities. These included KANU, the Kenya Africa National Union, Kenya's political party, which has become increasingly important

Mwethya Groups and Resource Management

Working together once or twice per week according to seasonal requirements, mwethya groups build and repair bench terraces, dig cut-off drains, and carry out other activities such as tree planting or weeding on individual shambas. They also cooperate on such resource management activities as building check dams in gullies that run between farms, perhaps bordering on as many as twenty or thirty separate land holdings. In addition, the group members cooperate on a variety of income-generating activities. These include maintenance of tree nurseries, tree planting, horticulture with emphasis on beans, cabbages, tomatoes, and onions, or business activities such as brickmaking, poultry, beekeeping, rabbits, and making baskets.

In Mbusyani the groups join together in what is called the Mwangano Group for public works such as digging at a dam site, or terracing a hillside where erosion is particularly bad. In so organizing, the members are acting with a new community-based spirit rather than focusing on more narrowly defined familial or clan concerns.

throughout Kenya at the local level; the Coffee Cooperative which is the sole institution through which farmers are able to process and sell coffee beans, and to obtain the necessary inputs for production; the 4-K Club which is active in some of the schools; and the KANU Youth Wing which plays a role with teenagers and young adults.

Of particular importance to community resource management are the mwethya groups which, in recent years, have become key actors in terms of resource questions. Results of the survey carried out in Mbusyani and Kyevaluki show that in 60% of the households one or more persons belongs to a mwethya group.

For many generations, the Kamba people had used mwethya groups, consisting of men and

women organized along clan or family lines, to provide emergency assistance or perform special needed functions such as house building or clearing new fields. The custom of mwethya had slipped away during the colonial era and was replaced with a more formal system of work groups and conscripted labor units such as those coerced into soil conservation programs (Thomas-Slayter and Ford, 1989).

Beginning in the mid-1970s, the mwethya tradition has been reinvigorated and transformed. In some communities, such as Mbusyani, the groups have become the backbone of resource management initiatives. Each group consists of approximately 20 to 40 villagers (mostly women), usually from the same cluster of shambas within a village. Today they are not necessarily organized along clan lines but instead as households with a common interest.

C. Factors Shaping Levels of Group Activity

Community organizations in Mbusyani are noticeably more active than those in Kyevaluki. Close examination of the two communities suggests six explanatory factors for greater group involvement in the one community than the other. Three of these factors are contextual circumstances characteristic of Mbusyani, conditions which will likely affect Kyevaluki in another decade or two. The remaining three are instrumental factors which help explain the greater involvement in local institutions and the greater effectiveness of these groups in one location than in the other.

Background Factors

First, the **impact of commodity production** on land rights is greater in Mbusyani than in Kyevaluki. Farm sizes are on average larger in Kyevaluki than in Mbusyani. The fragmentation of land in Mbusyani has proceeded at a more rapid pace than in Kyevaluki. The quality of land is somewhat better in the former than in the latter, and it has attracted more buyers from outside. Thus, the whole process of privatization and subdivision of holdings is moving along more rapidly in Mbusyani than in Kyevaluki, despite their proximity one to another. One might suggest that Kyevaluki represents the "last of the old" with some traditional options regarding extensive agriculture and cattle not foreclosed to all. Mbusyani is the "first generation of the new" with dependence on a cash crop and intensive agriculture along with high levels of integration into the cash economy.

This process affects women's rights to land. It means that women, as the chief food producers, need to think about ways to improve yields under conditions of intensive agricultural production, as

opposed to extensive production. This is particularly the case in Mbusyani.

Women perceive group activities and group ownership as a way to increase their access to new technologies and new forms of capital investment. Under present circumstances, acquiring new land is virtually impossible, and there is little or no transfer of earnings from the coffee crop into improving food crop production or into other investments which provide the household, and particularly the women in it, with spendable income.

One might suggest that Kyevaluki represents the "last of the old" with some traditional options regarding extensive agriculture and cattle not foreclosed to all. Mbusyani is the "first generation of the new" with dependence on a cash crop and intensive agriculture along with high levels of integration into the cash economy.

Second, many of the households are **marginalized, operating under circumstances on the edge of severe poverty.** Of the households chosen randomly for the interviews, over 50% were characterized as poor or medium-poor in Kyevaluki and 40% were in the same categories in Mbusyani.

More often in Mbusyani than in Kyevaluki, women are managing the farms while their husbands are elsewhere. These women have learned how to increase their access to the factors of production by sharing the only factor over which they have control - their labor. They

have taken some jobs which are extremely arduous, such as digging bench terraces, and execute them in ways which soften the workload through group effort, and which permit the accomplishment of major work responsibilities at the time of peak seasonal labor requirements.

These women have learned how to increase their access to the factors of production by sharing the only factor over which they have control - their labor.

Third, educational levels and general awareness of new opportunities are, overall, greater in Mbusyani than in Kyevaluki. Mbusyani has had a secondary school since 1975. Kyevaluki is just now introducing Form 3 into the sublocation. The survey revealed that twice as many young people are leaving Mbusyani for educational opportunities outside the sublocation than are leaving Kyevaluki. Overall educational levels for adults interviewed are also higher in Mbusyani than in Kyevaluki.

Instrumental Factors

1) Political and Administrative Leadership

Leadership styles reflect the different socio-economic circumstances and resulting attitudes which exist within the two sublocations. The combinations of ecology, population pressure, and new arrivals in Mbusyani have led to a more "modern" community. Such a community has different expectations from a more traditional one. The leadership in Mbusyani

reflects these new values and assumptions. The process, of course, is interactive. Leadership may reflect community attitudes; it also plays a key role in shaping the effectiveness of local institutions. In Mbusyani promoting development is a priority. The Assistant Chief in that sublocation has been in office for ten years. He is clearly hardworking, dedicated to the welfare of his community and highly respected and appreciated by the residents. His interest in promoting development within his community is unquestionable.

The leadership style of the Assistant Chief in Mbusyani reflects the people's interest in development and change. He perceives his role as **promoting development by listening, mobilizing, generating ideas, responding to the interests expressed within the community and working closely with the people.** Moreover, the Assistant

Leadership may reflect community attitudes; it also plays a key role in shaping the effectiveness of local institutions.

Chief is regular and attentive about his availability to members of his community. His open door policy extends to all, and there is evidence of easy, informal communication. Chairwomen of the groups in that sublocation feel comfortable entering his office to talk over problems of the groups or activities or plans. The Assistant Chief also makes a point of attending activities and events related to these groups. He is quite prepared to set aside an afternoon to visit a group working at an erosion control site, to welcome guests at a formal meeting, or to sit with a group to work out the details of writing a proposal for funding. He is, as one respondent observed, "in one hand with the people."

Circumstances shaping leadership styles in Kyevaluki are quite different. Within a more traditional context, the Assistant Chief is expected to be an authority figure. **His job is not so much to listen, to shape, and to mobilize, but to inform, and to maintain discipline and control.** Earning the confidence and respect of the people in the community and mobilizing them for development activities is perceived as less important than establishing authority.

He perceives his role as promoting development by listening, mobilizing, generating ideas, responding to the interests expressed within the community, and working closely with the people.

The Assistant Chief in Kyevaluki has been in the position for only three years. Within this more traditional context, he is clearly interested in fostering development for the sublocation. For example, he recently established an award ceremony for effective teaching and high marks in the national examinations. He is very much aware that Kyevaluki has been lagging behind in comparison with the other sublocations in the division, and he wants to move the community forward.

Yet, some aspects of this process are made more difficult in Kyevaluki by friction among some of the village headmen who reflect a somewhat authoritarian set of expectations. There are also difficulties in moving a community from one expecting an Assistant Chief to serve as an authority figure to one anticipating leadership emerging from and working with the people. Under such circumstances it is difficult to achieve

unity and a sense of common purpose.

In sum, the people of Mbusyani are demanding enthusiasm, commitment, and accessibility. They want - and receive - vigorous participation in the activities of organizations within the community. The people of Kyevaluki are more prepared to accept traditional styles of leadership. In important ways these varying community responses relate to gender roles in these two communities and the emergence of women as active participants in the public sphere in Mbusyani.

2) Group Leadership

Leadership from the community is a significant factor in the effectiveness of local organizations. In Mbusyani women leaders play a vital role in community groups. These women tend to be in their 40s, educated to upper primary or lower secondary school, and at the higher end of the economic spectrum. They have ideas and energy. They are not shy about seeking outside support and information. They lack capital and some skills, but they are hard working and eager to seize new opportunities.

In important ways these varying community responses relate to gender roles in these two communities and the emergence of women as active participants in the public sphere in Mbusyani.

In Mbusyani, 13 groups engage in a wide variety of activities, including agricultural tasks such as growing and selling beans, onions, potatoes, cabbages, and greens, commercial

Mrs. Mwololo, Chair of Mbusyani's Mwangano Group

Ever since she can remember, Mrs. Mwololo has liked trees. She first learned about planting tree seedlings from an agricultural officer who visited the community more than 20 years ago. She collected her own seeds, planted them in polyurethane bags, and transplanted them on the family's land - trees for fruit - lemons, oranges and papaya - for fertilizer or mulch, for firewood, and for shade. Eventually she took a short course in tree planting and management in Machakos.

In 1985 the women in Mrs. Mwololo's village decided to form a group. Mrs. Mwololo became a key member and, under her leadership, one of the major activities of the group was to establish a tree nursery and distribute seedlings. Since 1985, the group has sold more than 6000 seedlings for Ksh 3 each and has used the money, among other things, to pay for a worker to assist in the nursery.

Other regular activities of the group include building new terraces or renewing terraces on each other's farms, participation in a multi-group terracing scheme, a rotating credit-loan activity within the group, and participation in the operation and management of a maize grinding mill. The group is exploring possibilities for investing in knitting machines and in horticultural activities.

Now in her 40's, educated to standard six, and fortunate in her marriage to Mr. Mwololo who works as a mechanic in Nairobi, Mrs. Mwololo, in terms of education, domestic labor requirements, and stage of family life, is in a position to assume a community leadership role. She is chair of the Mwangano Women's Group, the federation of 13 women's groups in Mbusyani. By her own definition, Mrs. Mwololo sometimes finds group leadership a time-consuming responsibility and a burden. She, however, is "of" Mbusyani. She is interested in improving the welfare of her household and in building a stronger and more prosperous community. One can see her "staying power," and one has the sense that Mrs. Mwololo and women like her will persevere and succeed.

activities such as making and selling honey, paraffin, bricks, and baskets; some manage a maize mill; still others have built a social hall. Almost all groups undertake resource management activities including bench terracing and tree planting. In Kyevaluki there are six such mwethya groups. All share agricultural work on each other's farms. One group, Ivuuwo, has been involved in tree planting and has bought a plot for a meeting place and to put up a shop. More typical is Kwakathule Women's group which started in 1977, has 60 members, raises money by hiring out as an agricultural labor force, and offers traditional dancing for special occasions. They differ in number, scope, and breadth of activities from those in Mbusyani.

3) Institutional Linkages

The third instrumental factor consists of the institutional linkages which are emerging in Mbusyani. They can be observed in the Mwangano Women's Group which brings together

the 13 different mwethya groups to manage the posho mill. It can also be observed in some of the activities of churches in conjunction with mwethya groups. In one instance, the Catholic Diocese established a scheme for matching funds for mwethya groups. If the group raised Ksh 10,000 for a project, the Diocese matched it with an additional Ksh. 10,000. One group used the funds to purchase Ksh 20,000 of maize which the group then resold at a small profit. Members rented a shop in Mbusyani for this purpose. With the profits, they are now engaged in building their own shop.

Most denominations are not involved in resource management activities, nor do they have any sort of coherent development policy for the areas in which they work. However, the potential is there for constructive collaboration based on a growing institutional infrastructure. The mwethya groups are beginning to recognize and take advantage of this opportunity.

VII. Trends in Mbusyani and Kyevaluki

Four observations are especially pertinent to resource management, gender, and community organization in these two communities as they head toward the next century.

A. Links to and Dependence on the Outside World

Probably the most notable trend for both Mbusyani and Kyevaluki Sublocations is the **inexorable way in which their linkages with the broader political and economic systems are growing**. One facet of these linkages is the increasing need for and reliance on cash as rural residents get drawn into the cash economy, a phenomenon more widespread at this point in time in Mbusyani than in Kyevaluki. Many households in Mbusyani and Kyevaluki struggle to grow coffee in order to pay school fees and meet other requirements of modern life. The price per kilo which each and every farmer in Mbusyani or Kyevaluki obtains for his coffee is determined, not by markets at Kakuyuni or even Nairobi, but in London or Washington. The welfare of those households is shaped by the existence of drought in Brazil, or strife in Colombia. Their returns on their most significant cash crop vary according to events taking place far away and well beyond their control.

The impact of other international factors, such as structural adjustment, can be felt even in the households of Kyevaluki and Mbusyani. Pressures on countries such as Kenya to reduce

social services and keep expenditures down affect the adequacy of educational opportunities and health services in rural communities around the world. The majority of residents in Mbusyani and Kyevaluki note that their purchasing power has dropped drastically in the past few years. Most of the respondents observed that they do not have enough income to meet their basic requirements and pay school fees for their children. The decline in value of their currency, along with the drop in the world coffee price has made life difficult for residents of these two communities, most of whom rely on coffee as their main source of cash income.

The price per kilo which each and every farmer in Mbusyani or Kyevaluki obtains for his coffee is determined, not by markets at Kakuyuni or even Nairobi, but in London or Washington.

B. Population Pressures on Degraded Landscapes

Population in these communities has been increasing steadily since independence. The natural growth rate is nearly 4% per year, and promises to continue at this rate in the immediate future. Families are large, often with six to eight surviving children. The average age of

marriage for women and for bearing the first child has been declining. At the same time, the spacing between children has narrowed since the mid-1950s. Thus, typically, more children are born to each family today than in the past.

There is, for many, a vicious circle of low levels of productivity, low yields, low levels of capital to improve agricultural inputs or technology, and continuing poverty.

In recent years, however, the population increase has been due to in-migration and a combination of high birth rate and low death rate. The former has been considerable since independence and the privatization of land. In the early 1960s, there was substantial in-migration. This was reflected in the high number of land sales and purchases of that period. Until today, people have continued to seek new opportunities to purchase land, even in areas of marginal agricultural value such as Mbusyani and Kyevaluki. This has resulted in an increase in human pressure on the natural resource base. In both Kyevaluki and Mbusyani, but particularly in Mbusyani, the pressures of population growth on smallholdings are apparent.

Population growth is a serious issue when viewed in the light of finite land and water resources. Fragile soils and eroded hillsides characterize land which is only marginally productive. Vegetation is increasingly destroyed because of the great needs of a growing population for firewood. Intensive cultivation, under current landuse practices, along with defores-

tation, encourages further degradation. There is, for many, a vicious circle of low levels of productivity, low yields, low levels of capital to improve agricultural inputs or technology, and continuing poverty. In sum, the immediate consequence of population growth and the degraded landscape is increased poverty and an allocation of resources for immediate benefits and needs which quickly exhausts the capacity of the soils, vegetation and water.

C. A Depressed Economy

A depressed economy affects all households. Most grow coffee, and even the smallest farms allocate a sliver of land to this crop. Yet returns from coffee have not been good and the strategy has serious costs. These costs can escalate as families remove land from food production to put it into coffee or another cash crop.

What irony exists in a situation where there are inadequate employment opportunities for the numbers seeking employment, and there is inadequate labor for increasing food crop production.

Related to these economic issues is the problem of massive rural unemployment. Job opportunities are few in the area, apart from self-employment which requires capital. Many are able to get only casual work within the farming community. Lack of employment for people within the sublocations, as well as the difficulties in obtaining it outside the sublocations, means a lack of cash for a variety of purposes, including more effective and efficient use of the land.

What irony exists in a situation in which there are inadequate employment opportunities for the numbers seeking employment, and there is inadequate labor for increasing food crop production. Given the gender-based division of labor, the designation of food crops for household consumption as a female responsibility, and the lack of cash for purchasing labor inputs, there is a shortage of labor at critical times in food crop production. Males generally do not tend crops for domestic consumption. They work outside the household only for pay. And most households lack sufficient income to be able to place a priority on employing outside labor for food crops.

Overall, there is a growing sense of malaise, yet it is accompanied not simply by frustration and anger but also by some encouraging steps.

In this context, rural stratification continues apace with land sales and purchases increasing markedly in the 1980s. Household interviews indicate that the main reason people sell land is for school fees. With few other sources of income, land sales become a last resort in order to obtain the education for their children which they believe is vitally important. Most are just becoming aware of their misplaced hopes.

Perhaps this growing awareness contributes to a discouragement which one perceives in Mbusyani and Kyevaluki. Parents are worried about the future for their children, and young adults are worried about the future for themselves. There is a growing sense of malaise, yet it is accompanied not simply by frustration and anger but also by some encouraging steps.

D. Attitudinal Changes

One of the promising trends in Mbusyani and Kyevaluki relates to attitudinal changes. **First, there are "generational" and "gender" assumptions and expectations which are adjusting to new realities.** For example, a handful of older women in both areas, who were not widowed, had their own coffee shares. They themselves were members of the coffee society, dealt with the necessary arrangements for getting inputs and selling the coffee, and controlled the proceeds from their sales.

Young women, particularly those with secondary education are questioning the traditional roles assigned to them. Early marriage, early pregnancies, and a life of hard physical work cultivating their fields, carrying water, and gathering firewood is one they wish, at the very least, to delay for a few years. They search for other options, have new and different hopes and dreams, and in some instances, pursue them with vigor and imagination.

Young women, particularly those with secondary education are questioning the traditional roles assigned to them.

Second, there is an emerging interest in addressing issues. The people of Mbusyani demonstrated initiative and perseverance in arranging to attend the workshops in Katheka and organizing a PRA for themselves. In both sublocations, but particularly in Mbusyani, there is a growing awareness of the problems and issues which the communities face, and an interest in finding ways to deal with them.

Finally, one can see **emerging capacities to work together**. The thirteen mwethya groups in Mbusyani have organized the management and operation of a posho mill to service one portion of the community. The Mwangano or umbrella women's organization oversees erosion control efforts on the part of the subsidiary groups. The Mbusyani Dam is a major effort on the part of the community to implement water conservation.

The parents of school children in Kyevaluki organized to implement the first steps of the Village Resource Management Plan by gathering materials for the school water tanks and contributing labor to the development of the roof catchment systems at four schools. These may be small steps but they represent emerging capabilities on the part of the rural residents of Mbusyani and Kyevaluki.

VII. Policy Implications: Why Does Gender Matter?

For most communities in the semi-arid regions of Africa, such as Mbusyani and Kyevaluki, environmental degradation and resource problems persist. In both communities, people are beginning to acknowledge and address the decline of the resource base and the pressures people are putting on the land. The responses of communities are multiplying.

Gender matters in this context for many reasons. Two are basic. First, the responsibilities for managing resources are designated according to gender. Second, the responses to the environmental crisis are largely initiated, collectively, by women who see the very basis of their livelihood system eroding.

In both Mbusyani and Kyevaluki people, are beginning the process of acknowledging and addressing the decline of the resource base and the pressures of people upon the land.

Yet, as the evidence from Mbusyani and Kyevaluki suggests, the ways that the responsibilities for resources and the responses to environmental degradation are played out in the daily lives of these people vary substantially

according to the ecological, economic and social circumstances of the particular community. Hence, analysis of roles, rights, and responsibilities in regard to resources must take into account the specifics of the particular situation, as well as gender.

Strategies and concrete steps by national and international governments and agencies are needed to support the people of these communities.

The residents of Mbusyani and Kyevaluki, and other rural communities in Kenya, are both individually and collectively beginning to grapple with the resource and environmental issues of their localities. The collective efforts of women are much more in evidence in the community of Mbusyani than in Kyevaluki for reasons noted in this study. New strategies and concrete steps by national and international governments and agencies are needed to support the efforts of these communities. New policies and programs sensitive to the gender-differentiated roles and responsibilities and to the varying conditions and needs of specific communities are essential. Some relevant strategy and policy options are presented below.

A. For the Kenyan Government

The theme of the Government of Kenya's sixth development plan, 1989-1993, is "Participation for Progress." Drawing on Sessional Paper No. 10 of 1965 which stressed African socialism and the mutual social responsibility of all Kenyans, as well as their Harambee spirit, the plan emphasizes the joint responsibility of Government and the people for "improving the quality of life for all."

This theme is complemented by two others. First, the "District Focus for Rural Development Strategy" emphasizes decentralized planning, rural-based production, and industrial growth in small urban centers (Government of Kenya, 1988:36). Second, KANU, the National Party, is expected to "spearhead the mobilisation of the Kenyan people and institutions for greater prosperity in the spirit of Harambee and the guiding philosophy of Nyayo, Peace, Love, and Unity."

In addition, the Government of Kenya has made an official commitment to women through the establishment of the Women's Bureau in the Ministry of Culture and Social Services. This Bureau has been operative for more than a decade and has focused much of its efforts on rural women and their organizations.

Given this broad mandate for rural participation and mobilization, what, in fact, can the Government of Kenya do in communities in semi-arid lands with degraded resources and disparate social structures, such as those which characterize Mbusyani and Kyevaluki? In the context of an infrastructure, government staff, and services already stretched to capacity, several options, based on observations in Mbusyani and Kyevaluki, emerge. These

options encourage Governmental policy which sets the stage for development activities in such communities, strengthening the potentials of the men and women who reside there.

Government policy can provide for:

1. A supportive political environment Create a favorable political environment for local development activities. Without a supportive national environment, favorably disposed to local initiatives, such initiatives are not likely to emerge. Thus, participatory approaches to problem definition and local activity within rural communities can be encouraged. Further, **acknowledging the growing roles of rural women in community activities, and particularly resource management**, the Government can recommend ways in which women should be included in decision-making and implementation of development projects. It can also take steps to direct financial and technical resources to the women's groups and other self-help groups which are carrying out such activities.

These options encourage Governmental policy which sets the stage for development activities in such communities, strengthening the potentials of the men and women who reside there.

2. Local leadership Take steps to encourage the **development orientation of local leadership**. This means leaders who are **accountable to the community of men and women**, and who exhibit commitment, energy, and imagination in carrying out their responsibilities. In this regard, leadership training, not only for administrators, but also for leading citizens in the community, will assure

that women as well as men are provided such opportunities.

Evidence suggests that women so educated are better able to develop a competence in dealing with institutions of modern life, especially in rural communities where they are increasingly taking on community management responsibilities.

3. Collaborative relations with NGOs Set the terms for **supportive, collaborative relations with non-governmental organizations** and encourage them to undertake activities which may be difficult for a large bureaucracy to carry out. Such a mandate could direct NGOs to target support for community organizations engaged in alleviating water and fuelwood shortages, as well as other activities directed toward the poor rural household.

4. An Open Policy Arena Permit into the policy arena discussion of approaches which **enable local communities to address their needs** for managing resources effectively and for gaining access to cash income for the household. **Encourage formal inclusion of women in these processes.**

5. Education for Women Reaffirm the government's commitment to secondary education for women. Evidence suggests that women so educated are better able to develop a competence in dealing with the institutions of modern life, especially in rural communities where they are increasingly taking on community management responsibilities. In Mbusyani and Kyevaluki, opportunities for secondary education are limited,

as they are in many of Kenya's semi-arid regions. A girls' boarding school, or combined boarding and day school, for Kakuyuni Location would be a valuable asset to the families living in Mbusyani and Kyevaluki.

B. Non-Governmental Organizations

Much has been written about the role of non-governmental organizations (Bratton, 1987; Drabek, 1987; Thomas-Slayter, 1990). They are in a position to provide flexible, small-scale assistance, and to experiment with new approaches to productive rural activities. Communities such as Mbusyani eagerly seek NGO support. Communities like Kyevaluki need and benefit from this support, but may require some of the "enabling" conditions provided by the Government in order to utilize NGO support fully.

Communities like Kyevaluki need and benefit from this support, but may require some of the "enabling" conditions provided by the Government in order to utilize NGO support fully.

NGO assistance can provide:

1. Institutional infrastructure Strengthen the capacities of communities to address their own problems. This can be accomplished in different ways, according to the particularities of the community. For example, **seed money or start-up funds** in the form of a grant, loan, topping-up funds or other arrangements will enable local groups to get the necessary materials, equipment,

or technology for specific projects. The women's groups in Mbusyani are particularly well organized for making maximum use of such support. Given that women are particularly involved in managing natural resources at the community level, their associations are a natural place to begin building this infrastructure.

2. Rural economic opportunities Address issues of rural non-farm employment opportunities. Evidence from both Mbusyani and Kyevaluki indicates that there is a critical need for rural employment which could relieve some of the pressures on rapidly growing populations to earn an agricultural living from marginal land or to migrate to cities and towns. Attention to the creation of non-farm rural enterprises is of paramount importance. Most beneficial would be enterprises such as production of tools or hand-operated water pumps, or food processing machinery with linkages to improvements in agricultural productivity.

Enterprise, such as bicycle repair shops, printing, tailoring, shoemaking, or leather processing, could have a beneficial impact on household income and presumably could slow the rates of population growth.

In addition, many young people are desperate for employment. Enterprise, such as bicycle repair shops, printing, tailoring, shoemaking, or leather processing, could have a beneficial impact on household income and presumably could slow the rates of population growth.

They would provide income options for young men who seek their livelihoods in the cities, and for young women who seek alternatives to an early marriage. Such rural enterprise is likely to require **specialized technical advice**, information or connections beyond the community. NGOs can play a key role in providing this information and services.

Access to credit remains a major bottleneck to development efforts in communities such as Mbusyani and Kyevaluki.

3. Credit facilities Experiment with innovative ways to extend financial resources to rural communities. Access to credit remains a major bottleneck to development efforts in communities such as Mbusyani and Kyevaluki. The introduction of new types of credit arrangements could be a real benefit to rural households and organizations in Kenya. The Grameen Bank, for example, has worked effectively with a landless, assetless constituency in several countries. Experimentation with such a model would be useful in Kenya.

C. International Agencies

While international agencies are not likely to support individual projects, they can undertake a variety of activities which will benefit the people in communities like Mbusyani and Kyevaluki. International Agencies can provide support for:

1. Research Institutions **Support research institutions which are investigating trees and plants for food, fodder, and fuel** for household or small-scale commercial uses. Research along these lines is particularly useful to women in poor households if it focuses on indigenous vegetation,

known to the local people, which thrives in the particular environment, and which has multiple uses. Over the long run, research on new crops suitable for semi-arid lands, or adaptations of familiar ones for cultivation in this environment, would also be valuable.

Assuring adequate and equitable access to natural resources is a challenge which defies organizational boundaries.

2. Participatory Methodologies Both political and monetary support can be provided for research and action methodologies which are participatory, such as **Participatory Rural Appraisal (PRA)**. Such methodologies enable members of local communities to make decisions about their own needs and priorities and build their self-confidence and competence to address them. Mechanisms can also be put in place to encourage and assure that women as well as men are incorporated into these participatory processes.

3. Support for NGOs Support can be given to **NGOs which have a participatory relationship with local communities**, which have a mandate fostering self-reliance and effective management of resources, which incorporate gender-sensitive data into the planning and design of development projects for sustainable resource use, and which assure that women's voices are heard during the different phases of the development process.

4. Resource, Information, and Technology Centers Support can be provided for resource, information, and technology centers, perhaps at

a district level, which include information and materials which are relevant to both women's and men's responsibilities.

Assuring adequate and equitable access to natural resources is a challenge which defies organizational boundaries. As the evidence in this case study indicates, access to land, to water, and to fuelwood are increasingly urgent issues for most households. Questions of land tenure, and the security of women's access to land, must eventually be addressed at a national policy level. In the interim, there is much that can be done by the Government, by NGOs and by international donor agencies to improve equitable access to water and to vegetation for various purposes.

For example, both new and improved water sources are extremely important, and more than any other single intervention would decrease women's workloads and increase family well being. Protected wells and springs, holding tanks, hand pumps, roof catchments, and infiltration systems are among the small-scale projects which would make an enormous difference to the majority of households in both communities. These options illustrate the possibilities for more effective management of a critical resource. Myriads of other possibilities exist. Bringing together technical capabilities, organizational

Bringing together technical capabilities, organizational skills, and finance is a challenge for the local community in conjunction with Government, NGO, or international agencies.

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The people of Mbusyani and Kyevaluki face complex challenges. They can draw on their personal resources of energy, determination, self-reliance, and a capacity for dealing with tough problems. They do, however, need accountable leadership, a supportive political

environment, and access to some technical and financial resources which will make a different future possible. Assisting them in their endeavor to build this different future, requires knowledge, flexibility, and commitment on the part of the Government, NGOs, and International Agencies. It also involves an understanding of how gender roles shape these rural livelihood systems, as this analysis of rural change in Mbusyani and Kyevaluki demonstrates.

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