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INITIATIVES FOR RURAL DEVELOPMENT THROUGH COLLECTIVE ACTION: THE CASE OF HOUSEHOLD PARTICIPATION IN GROUP ACTIVITIES IN THE HIGHLANDS OF CENTRAL KENYA

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[1] ICRAF has since had its name changed to World Agroforestry Centre.

ABSTRACT

Dimensions of the nature, scope, and complexity of collective action in Kenya have evolved over many years. In studying collective action, the aim is to understand why and how people participate in networks of trust. The purpose of this study was to investigate the different objectives that farmers pursue through collective action with the aim of understanding the patterns of people's participation in collective action, identify factors that influence people to join groups, and identify the costs and benefits of participating in activities of groups.

The study was carried out in four sites spread across the highlands of central Kenya. Data was collected from a total of 442 households, focusing on whether members of those households belonged to groups and if so, what type of groups these were and their activities. In addition we looked at how these groups functioned and identified some of the contributions members make to these groups and the benefits from the same.

The analysis shows that collective action is used to accomplish a range of activities for different socioeconomic categories and that the majority of households in central Kenya engage in some form of group activity. There are numerous active groups in central Kenya, most starting on their own initiative. They are very dynamic and take on many new activities often involving income generation. Gender has an influence on the nature of collective action. Findings suggest that men and women are engaged in similar group activities but the motivation for joining groups and extent of participation may be different. Men and women have different priorities which influence their decision to join groups. Access to markets and social insurance coping mechanisms are the main reason why men join groups while for women, social insurance and building household assets are the primary reasons why they join groups. Women are likely to engage significantly in subsistence agriculture while men are traditionally inclined towards the production of commercial enterprises through which they obtain their major source of income. Men will therefore be more interested in joining groups that have an element of commercialization and marketing.

The study suggests that where institutions and policies that promote individual or private sector growth are weak, collective action can help to overcome these weaknesses and connect individuals in these institutions and policies.

Keywords: collective action, Kenya, groups, gender, assets, institutions

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Initiatives for Rural Development Through Collective Action: The Case of Household Participation in Group Activities in the Highlands of Central Kenya

Gatarwa Kariuki[2] and Frank Place[3]

1. INTRODUCTION

Institutions for collective action have played a significant role in meeting the social and economic development goals for a large segment of the rural population in Kenya. In its basic form, collective action (Ravnborg et al. 2000) is conceptualized in two ways: 1) the process by which voluntary institutions are created and maintained, and 2) the groups that decide to act together. Collective action leads to the creation of people's organizations (commonly referred to as groups) which bring together individuals with common problems and aspirations and who cannot, as individuals, meet certain goals as effectively, if at all. By pooling their capital, labor, and other resources, members are able to carry out profitable activities, which, if undertaken by individuals, would involve greater risk and effort. It therefore implies commonality in purpose, objectives, and means of how to achieve them, i.e. what activities people could engage in to help them realize their goals. Banks (1997) presents evidence showing that collective action through mutual aid groups is successful because members are more interested in collective benefits produced by groups and the collective benefit is not divisible into individual "units" so no single individual can enjoy alone or abscond with it.

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The study of collective action is about describing and analyzing people's participation in networks of trust used to generate social capital. It helps in assessing the role of institutions as avenues for disseminating and up scaling technologies and information, and as vehicles through which social change and social action occur. It also serves to identify intervention points for research and development. The need for this type of study is partly driven by the observation that in many communities today, there has been an evolution in traditional kinship ties and community networks, which has affected the way people act in response to different circumstances facing them. However some types of collective action, such as labor-sharing groups, have emerged within the context of local traditions but they will change in form and purpose as traditions and other factors, both internal and external, change. Also, socio-economic changes associated with the expansion of the market economy, migration of wage labor, and urbanization—all these are linked to a decline in reliance on traditional ways of doing things. Other factors that play a significant role include the change to individualized claims over resources that were hitherto owned either at the micro (household) or macro (community) level. It may be the case that these changes have occasioned the emergence of self-help groups typical in many rural areas of Kenya today and whose composition, organization, and participation transcend the traditional family or kinship ties. Such groups are no longer the 'women-type' groups that dominated the Kenyan rural landscape for a long time under the umbrella of the '*Maendeleo ya Wanawake'* (development of women) organization. They now include men groups, mixed groups, and youth groups all

engaged in a wide range of activities that include agricultural production, management of natural resources and technology dissemination.[4] Others operate credit schemes and income generating activities. There are also the bigger and more complex farmer associations and cooperative societies engaged in marketing activities, input supply, and provision of specialized services across all sectors of the Kenyan economy. The latter have contributed tremendously to the emergence and development of a commercialized agrarian sector particularly in central Kenya. Within the realm of development, current development paradigms focus on getting in place institutions and policies that will promote individual or private sector growth, for instance through markets. But these attempts are weak so collective action can help to overcome these weaknesses and connect individuals in these institutions and policies. As governments retreat from providing agricultural and social services, the gaps thus left are partially filled by producer and community based organizations (IFPRI 2002). In so doing, the private sector assumes an important role in linking larger-scale commercial farmers with markets while the parallel need for small farmers is met by the community based organizations.

2. THE ROLE OF COLLECTIVE ACTION: AN OVERVIEW

Local institutions for collective action are not only fundamental for agriculture (Scoones and Thompson 1994) but they function in a diversity of ways including:

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[4] Our approach involved taking a census of all households in a village with no *a priori* knowledge of whether they were members of single- or mixed-sex groups. However we found instances where some groups, though registered as women only groups, nevertheless admitted *de facto* male members who provided useful links to external sources of support. The analysis in this study looked specifically at individual group members.

- organizing labor resources for production and reproduction,
- mobilizing of material resources (savings, credit) to help produce more,
- assisting newly formed groups to access productive resources,
- securing sustainability in natural resource use,
- providing social infrastructure (water, clinics, roads, schools) for communities at the village level,
- influencing policy institutions that affect them,
- improving access to information for rural populations,
- improving flow of information between them and government and NGOs
- cementing social relationships,
- providing a framework for joint effort and action,
- helping people to organize their own knowledge in ways that it can be beneficial to them and useful for research,
- advocating for community rights, and
- mediating access to resources for disadvantaged or excluded groups of people

By focusing on the thematic issues of this study (innovation, marketing, and natural resource management) we could conceptualize how collective action can help people overcome some barriers to enable them benefit from their production. With respect to innovation, collective action can be used to facilitate dissemination and adoption of technologies. People can try out and test new technologies using common resources and in the process they create the opportunity to learn more effectively from

research and from one another. A case in point is the dissemination of *calliandra calothyrsus*, a fodder tree whose introduction was based on several relevant observations (Franzel et al. 1999). In investigating the role of collective action in the control of leaf-cutting ants, (Ravnborg et al. 2000) observe that undertaking a given task does not imply that the actual treatment should be done collectively. Rather collective action is necessary to ensure that different people at different locations perform the task simultaneously. Findings by Swallow *et al,* 2000 also support this hypothesis. In situations where inputs are not easily accessible and transport expenses are high, collective purchase of inputs itself can be an example of collective action (Badstue et al. 2002; Johnson et al. 2002)

In the case of marketing, individual rural farmers often produce small quantities of produce, production is seasonal, and markets are distantly separated in space. Infrastructure for transport and communication is poor, and therefore costs associated with transfer and transport of commodities are high. Crops produced for the market are either highly perishable (e.g. fruits and vegetables) or deteriorate first in quality if not processed in time (tea, coffee, milk) and storage facilities are poor, or lacking. Exchange functions of agricultural products often involve participation of middlemen in the marketing chain with intricate information networks (e.g. brokers and commission agents) further weakening the producers' bargaining position. How can collective action help overcome some of these bottlenecks? It is envisaged that collective marketing facilitates economies of size (or scale) which help to reduce the costs of getting the produce to the market and also improve the bargaining power of producers. Marketing can be organized informally (small groups of farmers) or formally (e.g. cooperatives) thus permitting the collective commercialization of products (Johnson et al. 2002).

Projects that encourage access to markets can make an important contribution to community welfare by generating income and employment opportunities by performing various marketing functions. Members of a marketing group can invest in small-scale primary processing facilities. Coupled with grading and standardization procedures for large volumes of production, these functions add value to the commodities, which can then fetch higher prices in the market. Collective action may also become a source of market information for other groups and individuals and, for the latter it is likely to motivate the formation of new groups with similar or different objectives performing similar or different activities. The flow of information is much more effective as it is likely to have a higher multiplying effect when channeled through established social networks. Collective action can be used to increase business opportunities by facilitating access to information and to markets, providing informal access to credit, and reducing transaction costs by bulk handling of produce for ease of transportation. This could also assist production and marketing groups to sell directly to final consumers.

In natural resource management (NRM), collective action can include joint investment in buying, constructing, or maintaining local infrastructure and technologies, setting and implementing rules to exploit a resource, representing the group to outsiders, and sharing information (Knox and Meinzen-Dick 1999; Gebremedhin et al. 2002). The success and sustainability of NRM is a function of not only appropriate technology and prices, but also the institutions involved in resource management at the local level. Socio-cultural issues are an important variable in collective action as they influence human behavior, which is a key variable in the analysis of decision-making in NRM. For example, in spite of women having to contribute labor, they have limited say in making

decisions on utilization and disposal of natural resources. The maintenance of traditions, beliefs, and practices underlie the framework that guides access to and control over resources, and the way conflict in resource use is resolved. Sustainable NRM requires locally adapted resource-conserving technologies, coordinated action by groups and support from external institutions working in partnership with the resource users. Initiatives based on local institutions could be used for natural resource management and the success of such community-based institutions in NRM is based on the ability of resource users to work together for individual benefit. Evidence of how local organizations can be successful in dealing with problems of NRM is cited in the case of land care groups in the Philippines (Mercado et al. 2000).

Within circles of families and friends, collective action plays an important role in providing emotional support during times of distress, brings people together to share matters of spiritual nourishment and also helps people to cope with management of risk occasioned by deleterious perturbations in the social and biophysical environments. Factors commonly cited as impinging upon collective action and local organization are identified in Rasmussen and Meinzen-Dick (1995), and Knox and Hazell (1999).

3. OBJECTIVES OF THE STUDY

The general objective of the study was to investigate the role of collective action in innovation, marketing, and NRM with the aim of understanding the factors that influence people's participation in collective effort and analyzing the different objectives that farmers pursue through collective action. Specifically it was to:

- identify typologies of collective action that men and women in the central highlands of Kenya engage in.
- identify the patterns of participation in collective action.
- identify the factors that influence people to join groups.
- identify the costs and benefits, to the individual, of participating in collective action.

4. METHODOLOGY

THE RESEARCH AREA

Following consultations with relevant stakeholders, four districts were identified for the study (Embu, Nyeri, Meru Central, Kirinyaga). All the four districts fall within a region that is generally referred to as the highlands of central Kenya which range in altitude from 1300m to 1800m a.s.l. (Franzel et al. 1999). Rainfall occurs in two seasons, March to June and October to December, and averages 1200mm to 1500mm annually. The rainfall average is higher in the good zones of Nyeri and Kirinyaga. Soils, primarily nitosols, are deep and of moderate to high fertility. Population density is high ranging from 450 to 700 persons per km^2. Most farmers have title to their land. The production system is characterized by a preponderance of small-scale farms doing both crop and livestock farming. The main economic activities include commercial agriculture with tea, horticulture, and coffee being the leading cash crops targeted mainly for the export market. Milk is important for both cash and domestic use. The subsistence sector is dominated by the production of maize and beans. Agroforestry is becoming an important

component of the production system with respect to soil fertility improvement, fuel wood and timber supply and as fodder for livestock.

The case study sites in Kenya were selected after stratifying on agro-ecological zones. Two district sites were selected in high potential zones (Kirinyaga, Nyeri) and two in less favorable zones (drier portions of Meru Central, Embu). At the next stage, one division was selected from each of the districts (Nembure Division of Embu district, Mukurweini division of Nyeri district, Abothuguchi East division of Meru Central, Ndia division of Kirinyaga district). Then one village was selected from each of the four divisions. Site selection was purposeful based on preliminary information which confirmed the presence of a wide range of collective action activities.

THE RESEARCH AGENDA

A research agenda, as originally conceptualized by researchers themselves, may be modified depending on the needs of stakeholders that may not have participated in the original study design. Such players include Non Governmental and Community Based Organizations that have established grassroots linkages with the target communities together with whom they use participatory approaches to identify, prioritize, and implement their programmes and policies.

The original goal of this research project was to study how people come together for innovation, marketing, and natural resource management. We felt, however, that it was important to engage these participants at the stage before implementation so as to capture their needs and concerns. However participants at the first stakeholders'

workshop raised a lot of other interesting issues which, when analyzed, helped to shape the direction of the research. Many participants expressed the need for the research to address such issues as who benefited from what types of groups, and what factors contributed to success/failure of groups. Many participants felt that in addition to measuring group performance (which at that stage was deemed to be difficult; see paper by Place et al. 2002), such information would not only be useful to the groups themselves but also to the different types of organizations that worked with those groups. Information and insights provided by these stakeholders therefore helped us to better focus the research so that the outputs from this work would have enhanced practical utility and could be used for improving livelihoods and reducing poverty among the communities under study. It therefore emphasizes the importance of using participatory approaches in the analysis of research and development issues affecting communities i.e. let people be part of defining their development agenda

In the study we recognized that an evaluation of performance was difficult due to the wide variety of uses of collective action and that some types of benefits (e.g. utility from group interaction, spiritual support, insurance value of risk sharing) were difficult to measure.[5] Among the issues we examined are: reasons why people join groups, objectives and activities of the groups they belonged to, characteristics of the people participating in those groups and the costs and benefits associated with belonging to the group(s). We then defined some typologies of collective action, selected some activities and asked the respondents to tell us whether they preferred to undertake them through

[5] These issues are addressed in the paper by Place *et al*. 2002

collective effort as opposed to undertaking them individually. These activities included tree panting, soil conservation, purchase of farm inputs and selling of agricultural commodities.

METHODS OF DATA COLLECTION AND ANALYSIS

Primary data was collected at household, group, and key informant levels using questionnaires, group discussions, and interview guides while secondary data was synthesized from literature reviews, and reports at district headquarters. Discussions with key informants and leaders of some groups were held to enhance our understanding of the history of collective action in the study area and situating its role in each of the sites. This was followed by a household census in the selected village in each of the sites. In total, 442 household interviews were conducted (100 in Embu, 119, in Nyeri, 119 in Meru, and 104 in Kirinyaga). At the household level we collected data on all groups that adult members in the household belonged to at the time of interview and in the previous five years to provide a population of existing groups in the area. Within each interview, we collected information on participation of adult members of the household in groups. We captured data on the number and identity of adult members of a household who had joined a group or cooperative in the five years preceding the study, seeking the main purpose and activities of the group(s) at the time when they joined as members. We also sought individual level of participation in group decision-making about rules, activities, and benefit sharing in terms of whether this was on the lower end, medium or high, how often their group(s) met, and how often the individual attended those meetings. This was followed by detailed information on both the husband's and wife's involvement with

groups. Experiences of both husband and wife with reference to groups, their contributions to and benefits from groups were recorded. This household survey also served the purpose of helping to identify the broad range of groups that people belonged to in the area. We also sought their preferences for individual versus collective action relating to a number of activities (risk-coping, income generating, natural resource management, and marketing). This information provided an indication of participation of individuals and households in groups.

We would like to highlight some of the limitations we encountered in collecting the data. In many cases most adults belonged to groups, and often belonged to more than one. Since it was therefore difficult to get data on all the groups they belonged to, we chose to ask questions relating to the two groups that a respondent felt were most important to them. We also found that in some cases different respondents referred to the same group by a different name. In some examples, there were groups that were formed along family relationships and therefore conventionally adopted a name associated with a (male) member of the clan but were formally registered using a different name. This inhibited the ability to match individuals to groups.

Another limitation is that we could not physically find particular members of a group within a household to interview and had to rely on information provided by another relative. In some cases, such a member may have belonged to another group that the relative was not aware of. In addition the relative would not have full details relating to such a group. We for example came across a number of respondents who, in spite of knowing that their spouses belonged to some group(s), they did not know the names of those groups or the activities they were engaged in. Men were particularly vulnerable to

this and at times even appeared to have a negative attitude about the groups that their wives belonged to particularly those that empowered women to access their independent sources of income; some expressed the concern that such groups were having a “bad influence on the women and made them become stubborn”. When confronted with such circumstances, we tried to cross-check the information with other members of the same gender, outside that particular household, that belonged to the same group.

Based on responses by individual members, the analysis of the performance of a wide range of groups and their activities using our four case study sites was infeasible because of the following: 1) quantification of benefits and contributions was very difficult, partly because many activities were ongoing, and others were contingent upon certain events occurring; 2) it was difficult to have a common unit of time over which contributions and benefits for diverse activities could be measured; 3) the timing of contributions and benefits differs across individuals so some people may have contributed without yet benefiting. So the performance of the group might be fine but it could not be measured with individuals.

5. RESULTS AND DISCUSSION

HOUSEHOLD CHARACTERISTICS

The descriptive analyses reported in this section were done at the household level. A total of 442 households were covered in the interview of which 22.6, 26.9, 26.9, and 23.5 percent were in Embu, Nyeri, Meru, and Kirinyaga respectively. The number of men respondents in the sample was 144 (33 percent) while the rest 298 (67 percent) were women. For the respondents, 198 (45 percent) were the actual household heads (men or women) and in 235 (53 percent) of the cases it was the wife who was interviewed. In 41 (9 percent) of the households we were able to get both the husband and wife to answer questions related to their involvement in groups.[6] Table 1 depicts four key characteristics of the respondents.

[6] In most households, men are usually away from the farm attending to other matters and it is rare to find them between the hours of 10.0a.m. and 6.00 p.m.

Table 1--Characteristics of survey respondents

Variable	N	%
Gender of respondent		
Men	144	33
Women	298	67
Household type		
Male headed with spouse	319	72
Male headed single	23	5
Female headed husband away	38	9
Female headed widowed	53	12
Female headed single or divorced	9	2
Major income sources		
Farming	374	86
Employment/business	68	14

Source: Case study HH survey 2001

The respondents' ages ranged from 19 to 96 years with a mean of 45 (s.d.=16). With respect to type of household, 319 (72 percent) were male headed with spouse, 23 (5 percent) male headed single and 38 (9 percent) were *de facto* female headed with the husband living away from the farm. Another 53 (12 percent) were headed by widows and only 9 (2 percent) were headed by single or divorced women. The average household size[7] was 5 (s.d.=2.16, n=442) with an average of 40 percent being below the age of 18. There is a negative but not significant correlation between age of male household heads and family size ($r=-.08$). The number of male- and female-headed households was 342 (77 percent) and 100 (22 percent) respectively. There were 2 sub-categories of male-headed households (male-headed with spouse, male-headed single) and 3 of female-headed

[7] The number of those living on the household farm at the time of interview. Mean of those under 18 years is 2 (s.d.=1.7, n=435)

households (female-headed husband away, female-headed widow, female-headed single or divorced).

MAJOR SOURCES OF INCOME

Households derived their livelihoods from different occupations and at different scales of operation; these include farming, employment, business, and casual work. The number of households whose major source of income was farming constitute 85 percent, while 9 percent were in permanent employment, 3 percent were in business, 2 percent were engaged in casual employment. In all the four districts more than 70 percent of the households depended on farming as the primary source of income with Nyeri leading at 92 percent of respondents depending on farming, while Embu had the lowest percentage of farmers at 74 percent. Households depending on formal employment as the primary source of income averaged only 9 percent across regions, with Embu at 18 percent and Nyeri at 3 percent; only 3 percent of all respondents were engaged in business as the primary livelihood source. Types of business include retail outlets at local trading centers (mainly by men) plus petty trading in secondhand clothing, cereals, fruits, and vegetables (dominated by women). The skewed reliance on agriculture reflects the general agrarian nature of the rural Kenyan economy. A total of 244 (55 percent) and 35 (8 percent) households had a second and third source of income respectively. Those households with permanent employment as the primary livelihood source also invested part of their earnings in farming as an alternative source. The majority of respondents (85 percent) derived their livelihood from farming, and only 9 and 3 percent depended on farming and business as the major source of income respectively. For purposes of relating age and

sources of income for the households where the respondent was also the actual head, respondents were put into age categories and the pattern emerging is presented in Table 2.

Table 2--Sources of income by age category

Source of income	Age category										Total	
	<25		25-35		36-45		46-65		>65			
	N	%	N	%	N	%	N	%	N	%	N	%
Farming	2	1	28	14.5	29	15	66	34.2	45	23	170	88.2
Employment	1	0.5	1	0.5	3	1.5	6	3	0	0	11	5.7
Business	0	0	3	1.5	2	1	1	0.5	1	0.5	7	3.6
Casual	0	0	2	1	0	0	0	0	0	0	2	1
Other	0	0	1	0.5	1	0.5	0	0	1	0.5	3	1.5
Total	3	1.5	35	18	35	18	73	37.5	47	24	193	100

Source: Case study HH survey 2001

The highest number of household heads that depended on farming were in the 46 to 65 age category (34 percent) while the lowest were found in the less than 25 age category, (1 percent); those depending on employment were also highest in the 46 to 65 (3 percent) category while people depending on business were the majority in the 25 to 35 category (1.5 percent). The data suggests that younger people tend to depend less on farming as the main source of income and instead look for other income earning opportunities such as formal employment or invest in some form of business which they usually start at a small scale. Those who are below 25 may have only recently left school

and may be still looking for jobs or are undertaking some form of further training, which includes various types of apprenticeship. In addition they may not have their own land as they are likely not to have benefited by inheriting land, which is normally determined by the household head. For each household, we also captured data on the primary source of income for other adult members besides the respondent, with a provision of up to six other people. The results are as shown in Table 3:

Table 3--Primary sources of income for other household members

Person No.	Source of income					Total
	Farming	Employment	Business	Casual	Other	
1	327	37	33	11	34	442
2	323	19	21	5	19	387
3	79	3	3	0	21	106
4	41	6	6	8	19	80
5	19	4	4	7	12	46
6	10	4	1	1	4	20
Total	799	73	68	32	109	1081

Source: Case study HH survey 2001

The pattern follows that of the respondents with majority (74 percent) depending on farming, and only 7 and 6.3 percent on salaried employment and business respectively.

LAND OWNERSHIP AND LABOR USE

Land is the most important asset and majority of the respondents derived their livelihood from farm-based activities. Land is owned mainly through patrilineal inheritance and freehold title is the most frequent form of tenure. Most households have a

single piece of land. The number of households with 2 or more pieces of land is 87 (20 percent), while only 12 (3 percent) have more than 3 pieces. Majority of those with more than one piece of land have acquired the additional piece(s) through purchase. The size distribution of land is shown in Tble 4. The mean land size is 3.28 acres, 96 percent of the households have less than 8 acres, and only 5 households (1 percent) have 20 acres and above. The mean acreage is highest for Meru central (at 4.9 acres, s.d.=4.2 and n=118) while the lowest is for Nyeri (at 1.8 acres, s.d.=1.7 and n=118). This pattern of land size also follows the pattern of population density which is highest for Nyeri and lowest for Meru central. On aggregate average rich households have land that is three times as big compared to poor households. In terms of land tenure, privatization of land in Kenya meant that there were hardly any communal lands over which certain types of collective action could have emerged.

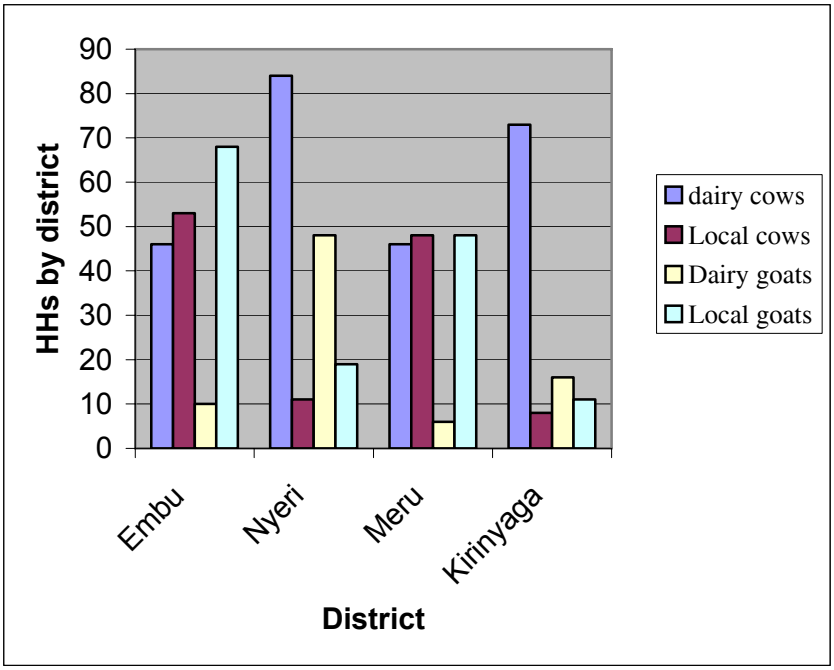
Table 4--Land ownership by number and size of parcels

Parcel #	Mean[1]	Min	Max	N[2]
1	2.75 (2.82)	.08	30.0	440(99.5)
2	2.27 (3.66)	.25	30.0	87(19.7)
3	1.48 (1.49)	.50	6.0	12(2.7)
4	7.17 (4.91)	1.50	10.0	3(0.7)
Total	3.28 (3.79)	.13	36.00	440(99.5)

Source: Case study HH survey 2001 ([1,2] Figures in brackets are the standard deviations and percentages respectively, data missing for 2 cases)

Livestock ownership is not only dictated by ecology, but also access to technology particularly for dairy animals. Figure 1 depicts the pattern of livestock ownership (dairy cows and goats) by households across the four districts.

Figure 1--Number of households owning dairy animals by District



The percentages of households owning dairy cattle are 41, 71, 39, and 70 percent in Embu, Nyeri, Meru, and Kirinyaga respectively; for dairy goats the figures are 11, 9, 40, and 5 percent. Higher potential areas of Nyeri and Kirinyaga have 64 percent of dairy cattle and 80 percent of dairy goats. For local breeds the lower potential zones of Meru and Embu have 84 percent of cows and 79 percent of goats. It happens that networks for the dairy goat are more extensive in Nyeri and Kirinyaga particularly due to the presence of the Dairy Goat Association of Kenya.

Table 5 shows activities for which households engage both long-term permanent and casual labor.

Table 5--Households hiring labor by activity

Activity	Long term		Casual	
	N	%	N	%
General farm activities	16	39	117	53
Cash crops	15	37	97	44
Dairy	9	22	7	3
House chores	1	2	0	0
Total	41	100	221	100

Source: Case study HH survey 2001

The number of households hiring long-term and casual labor is 41 (9 percent) and 221 (50 percent) respectively. Thus family members contribute a major portion of farm labor, demand for labor fluctuates with seasons with peaks being at land preparation, planting, weeding, and harvesting; operations that require timeliness. Of the casual labor, 44 percent of households use it on cash crops (tea and coffee) mainly for pruning, picking, sorting, delivery to collection points and spraying. Dairy being a permanent enterprise suggests why more households use long term labor than casual labor for feeding dairy animals under the cut-and-carry system. Only in Meru Central, where they have larger and spatially distributed plots of land, was the use of collective labor evident mainly in land preparation which is the only example linking current to historical practice. Among the *Ameru*, the earliest collective action activities in the area also involved labor-sharing groups (*nteithio*) for opening up the land for cultivation.[8] Men would clear the bush and dig the land; women would plant and weed while harvesting was done by both men and women. The beneficiary of this arrangement would provide

[8] Mary Murithi the divisional leader of women groups: personal communication

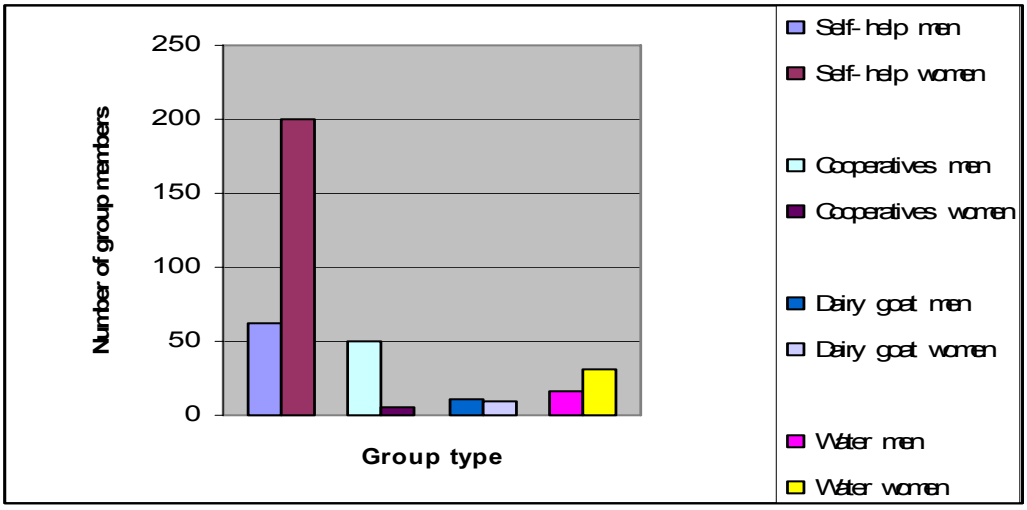
food and brew (*mĩrratina*) for the occasion. Children mainly looked after livestock (goats were the main species then) and they would at times also help in carrying the harvest from the farms. Hierarchical structures based on age groups were useful for passing on important knowledge and skills from one generation to the next.

PARTICIPATION IN COLLECTIVE ACTION GROUPS

At the household level, we made an inventory of all groups that all adult members in the household belonged to at the time of interview or within the previous five years. This provided a population of groups existing in each site. Out of the total 442 households, 372 (84 percent) reported having other members who had belonged to one or more groups. The total number of people recorded as having belonged to those groups was 763. However respondents were not always able to tell which groups that these others belonged to, their membership size, and the activities that they were engaged in, so we did not include these data in our analysis. Only responses where gender of the respondent and survey question matched were considered. Household members may either have belonged to the same group or different groups. Based on membership numbers, data from household surveys indicates that general self-help groups,[9] water groups, dairy goat groups, and coffee cooperative societies were the four most important types of groups that people belonged to. Figure 2 shows distribution of group membership by type of group and gender of the individual.

[9] Combines merry-go-round activities for building household assets, cash contributions, wedding and funeral assistance and paying school fees.

Figure 2--Membership of groups by gender



We observed a lot of skew in the pattern of other variables that limited our ability to analyze the data based on wealth and occupation. For instance, we tried to categorize respondents into wealth and occupation categories but found that the majority would be defined as poor while most (>70 percent) had farming as the main occupation. On this basis, we were limited in the amount of statistical analysis we could do.

Self-help groups are primarily involved in building of household assets but also provide social and economic support particularly in crises or emergency periods. Cooperative societies are entities established by an Act of Parliament to engage in the marketing of agricultural commodities, as defined under the relevant act, on behalf of members. They may also acquire inputs on behalf of the members registered under it. The ones referred to here are the coffee marketing cooperatives. Dairy goat groups are involved in the dissemination of improved (exotic and cross-bred) goat breeds among

poorer farmers who have limited capacity to afford dairy cattle which are many times more expensive and require a much higher outlay of resources to sustain. By pooling their effort and resources, members can collectively purchase inputs; demand extension services from government or private providers, and market their milk and goats collectively. Water is a key issue and especially because it takes up a lot of the women's time as it more often than not has to be fetched from rivers and streams that are far or in very hilly terrain. Many communities therefore make the provision of piped water a priority and because it is an expensive investment, they find pooling of resources to be the most feasible approach to tackle the problem.

Our analysis did not show significant differences in terms of the instruments that are used to define group structure and functioning. For instance all groups seemed to subscribe to the same requirement for registration that is provided for by the guidelines issued by the Department of Culture and Social Services which carries the mandate to register and monitor group activities. Analysis at the group level (Place et al 2002) indicates that groups are considerably formalized in the sense of having by-laws (95 percent), having bank accounts (74 percent), being registered (72 percent), and having a constitution (63 percent). Cooperatives, however, may have several sub-committees and are required by law to hold scheduled annual general meetings. Groups also exhibit a similar pattern in terms of the rules applied and level of penalties charged mainly for failure to attend meetings or meet agreed contribution targets in terms of labor (for tree nurseries, dairy goats) or cash; however income-generating groups tend to charge higher penalties seemingly because the opportunity cost of missing out on the contribution is valued in terms of the output (profit) sacrificed. Members are free to raise any issues,

concerns, or appeals with their respective committees or with the larger membership and that is why attendance in meetings is considered to be an important element in group functioning.

Self-help groups followed by water groups are the most important groups for both gender categories. The percentage membership in self-help groups is much higher for women (49 percent) compared to men (15 percent) but in general they are spread in similar proportions across all the four sites (15.4 percent in Embu, 16.5 percent in Nyeri, 16.6 percent in Meru, and 15.7 percent in Kirinyaga). Water groups are important for the drier Meru central where the number of men involved (3 percent) is smaller than that of women (8 percent). This is expected since it is women who shoulder the responsibility of fetching water, particularly for domestic use. Also due to politics and corruption in water groups, water projects here are now registered under women groups because it is believed that women are more trustworthy with funds and are less likely to spend too much time on issues unrelated to development.[10] Men are however allowed to join but only as ordinary members and as long as they support the women in contributing the agreed cash and labor to work on the project.

Kirinyaga had the highest number of people belonging to coffee cooperative societies followed by Embu. Nyeri was expected to compare with Kirinyaga in terms of membership in cooperatives but the coffee sector had almost collapsed and people did not want to be associated with their local cooperative societies.[11] Some 12 percent of men

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[10] Catherine Mutwiri, chairlady of one of the water projects: personal communication

[11] Just before the study was undertaken a lot of violence had erupted in the area over management of coffee cooperatives with majority of members opting for splitting of the large cooperatives into smaller entities and sharing of the assets. Some factories were set on fire and some people lost their lives and property.

belonged to cooperative societies compared to only about 2 percent of women. Usually it is men who are registered as *bona fide* members of the cooperative by virtue of owning the land where coffee is planted. A few cases of women being registered occur if the women are single, mainly through having lost their husbands. Although dairy goats have been introduced across all the sites, dairy goat groups are important only in the higher potential areas of Nyeri and Kirinyaga where the ecological conditions are conducive for dairy animal production and together with coffee, dairy goats are an important source of income. The proportion of men and women in these groups is similar. If one is registered as a member the spouse is also assumed to be a member, but only the name of one of them will appear in the register.[12] It is also here where the network for disseminating the dairy goat technology through farmer groups is well established through the Dairy Goat Association of Kenya. And it is expected that this model of collective action will speed up the process of up scaling the technology.[13] Participation in collective action is often voluntary but rules of compliance that govern behavior and sanctions against those deviating from the laid down norms are put in place to regulate the functioning of the group. Such rules spell out the eligibility criteria for admission to groups and define what penalties are to be imposed on breaking the rules. Thus groups depend on social control measures that people have to obey to be considered part of the group. The social relations cultivated within a group are then used to give people access to resources and information.

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[12] Therefore, since the spouse is not 'officially' a member, he or she can join another group as a registered member, allowing the household a joint strategy in terms of group membership.
[13] Mwangi Warui, Technical Manager DGAK: Personal communication

Even though the literature on collective action stresses that fundamentally people join groups because of the benefits they anticipate, it is also very clear that groups are susceptible to free rider problems, shirking, etc., which destroy the incentives for collective action. In our research proposal we had intended to look at these aspects in the context of looking at groups that had disbanded and the reasons for that. However the approach of fully enumerating existing or recently disbanded groups within a defined area and then interviewing a majority of their members through the use of a census did not work out as planned. We did not fully succeed in finding disbanded groups; individuals may have not remembered these well or were reluctant to provide information on them, not knowing our motives. Moreover, groups do not follow administrative boundaries and we found a large number of individuals belonging to groups that were outside our enumeration area. It is also important to note that some groups are formed in response to the emergence of interventions supported through government or other external programmes; a case in point is the proliferation of HIV/AIDS groups after the government and donors provided funds to implement programmes and policies aimed at dealing with the pandemic. Such groups last as long as the funds last although there are few cases where such groups may transform themselves to other activities unrelated to their initial purpose.

WHY PEOPLE JOIN GROUPS

One objective of this study was to identify the reasons that motivate people to join groups. The responses were disaggregated by gender and the results are shown in table 6.

Table 6--Reasons why people join groups

Reason	# Men	%	#Women	%
Access markets	53	36	7	3
For emergency assistance	44	30	76	30
Access piped water	15	10	38	15
Access dairy goat technology	15	10	11	4
Build household assets	10	6	101	39
Access loans from group	1	1	6	2
Benefit from income	1	1	6	2
Others	10	6	14	5
Total	149	100	259	100

Source: Case study HH survey 2001

The table shows that men and women have different priorities which influence their decision to join groups. Access to markets and social insurance coping mechanisms are the main reason why men join groups while for women social insurance and building household assets are the primary reasons why they join groups. Women are likely to be concerned about general household welfare and food security at the household level and are therefore likely to engage in subsistence agriculture while men are inclined towards the production of commercial enterprises through which they command the major source of income. Men will therefore be more interested in joining groups that have an element of commercialization and marketing. Participation in marketing groups is almost a requirement since the major products (tea, coffee, and to some extent milk) are marketed collectively.

For 39 percent of the women, building household assets is the major reason why they join groups compared to only 7 percent of men. Such household assets include

furniture, utensils, clothes, bedding, and television sets. Again women are more concerned about improving the general welfare of the household and building household assets is an essential component. The number of men and women joining groups as insurance against risks (illness, death, or lack funds to pay school fees) is similar and this may be explained by the fact that such risks are not selective across gender. Access to piped water is also ranked similarly as the third most important reason for joining groups but by a higher proportion of women (15 percent) than men (10 percent). It is instructive to note that income generating activities and loans do not feature significantly in the responses given. This is true regarding the motivation for the group formation at the outset, but the group data seem to suggest that many groups evolve to taking on income-generating activities over time. This is borne out by the fact that over 50 percent of the groups that started off as self-help had along the way adopted some activities that involved a savings scheme that would allow members borrow money from the group or use part of the savings to invest in an activity geared towards income generation. Our hypothesis is that this is because before people are willing to contribute money to make money, there needs to be a bonding period where they build trust and confidence with one another and establish networks of money flow based on that trust. This option is even more attractive in the face of circumstances that limit access to loans because lending by commercial entities may not be viable for resource-poor farmers, as they require substantial capital injections and loans are likely to attract higher interest rates. Thus, the majority of group members depend on merry-go-round contribution schemes and insurance groups to meet their demand for cash, which is usually immediately available. The interest charged varies and for some groups may be as high as 20 percent per month.

The number, scale, and composition of group activities are based on the purpose of the group and these may change over time either by adding new activities onto existing ones or moving onto new activities after accomplishing the initial objective(s).

DECISION-MAKING, MEETINGS AND LEADERSHIP IN GROUPS

Household members were asked to identify themselves in terms of the position that they occupied in the group at the time of interview. Some belonged to groups that had two categories (committee and ordinary members) while others reported three categories (executive, general committee, and ordinary members). The general responsibilities of the committees include organizing and calling for meetings, informing members on new developments relating to regulations that may affect their functioning, custody of the funds contributed, and linking members with external sources of information and other support. Most groups seemed to provide an atmosphere where members could openly raise any issues that they felt were of importance to the group, but during interviews, some respondents raised concerns about their group's leadership. Open discussion in presence of all members, rather than writing or channeling concerns through the committees seemed to be the most acceptable mode of submission. Thus members look upon the committees to provide guidance in matters of leadership, accountability, honesty and innovativeness. The representation between men and women in groups is shown in Table 7.

Table 7--Position in group by gender

Position in group	Men		Women	
	N	%	N	%
Executive committee	18	12	35	13
General committee	9	6	16	6
Ordinary member	122	82	208	81
Total	149	100	259	100

Source: Case study HH survey 2001

The table shows that both men and women have equal proportionate representation in their respective groups. It was noted that majority of the groups had four members in the executive committee (chair, vice-chair, secretary, and treasurer), while on average a group with a general committee co-opted only 2-3 members to join the general committee. One aspect that may be related to the individual position in the group is the level to which they participate in decision-making about group rules, activities, and benefit sharing. Participatory decision-making coupled with committed and quality leadership are important for enhancing group performance and empowering individual members to capture the benefits from groups. It also empowers disadvantaged groups (e.g. women) to have greater access to income and other necessities that require partaking in decision-making with responsibility for production, reproduction, consumption, technology adoption, and marketing (Razavi and Miller 1995). This brings to light the fact that although property rights systems in Africa generally work against and even dispossess women, institutions for collective action play an important role in empowering women. Institutions that support farmers' secure tenure over resources can meet the need for and ability of farmers to pursue sustainable livelihoods and make long-term investments in improving and conserving resources (IFPRI 2002).

We asked individual respondents to tell us their level of participation in and satisfaction with certain decisions relating to functioning of their group(s). The decisions referred to here are those relating to enacting and enforcing of new rules, penalties to be charged for failure to comply with those rules, activities to be introduced, continued or terminated, the level of contributions and benefit sharing, and frequency and mode of holding elections. On being questioned whether their participation in decision-making was high, medium, or low, the responses were 37, 49 and 14 percent for men while for women it was 41, 52, and 7 percent respectively. Thus there was similarity in the way decision-making patterns were spread across men and women groups. High participation is most likely associated with being in the group committee. The majority of those who reported low participation belonged to cooperative societies. This reflects an inclusive and therefore democratic nature in the way groups conduct their affairs against a landscape of mismanagement and lack of transparency within cooperative societies. In terms of having rules of conduct, only 8 (5 percent) of men and 5 (1 percent) of women answered in the negative. These responses were mainly from respondents who belonged to relatively new groups, which were yet to enact new rules. In addition, some groups that were organized on *ad hoc* basis did not have any rules. Rules that were enforceable by penalties include lateness or failure to attend meetings without apologies, with charges varying from as low as 5 Kenya shillings[14] (for risk-coping groups) to as high as 500 Kenya shillings (for income-generating groups). In many groups failure to attend three consecutive meetings would lead to expulsion. Late contributions were surcharged an

[14] At the time of survey 77.5 Kenya shillings=1$ with fifty percent of the rural population in Kenya subsisting below the poverty line, defined as less than $1 per day.

average penalty of 10 percent. The level of penalties is determined through consensus so that they are agreeable to all members hence satisfaction with the way these are imposed is high.

A majority of respondents reported that the groups they belonged to organized meetings where members could discuss their plans and progress and also make contributions, but a few only come together when an emergency situation such as illness or death arises. These meetings are also an important forum for sharing new information on developments in the local arena and for linking with external sources of information. The number of meetings varied and included both executive and ordinary member meetings. Monthly meetings were common for most of the groups and members were required to attend in person even in the case of mixed groups where husband and wife were both members.[15] Individual attendance was categorized as always, mostly or sometimes. Among the men, 64, 22, and 14 percent reported attending always, mostly and sometimes respectively while for women the tally was 63, 28 and 9 percent. Dairy goat and water groups showed consistent patterns of holding meetings, elections, enacting rules and charging penalties while self-help groups were more amorphous in defining their functioning.

It appears that personal contact was the most important channel for passing information regarding group affairs with a higher percentage of men using this mode; possibly because men interacted more frequently at the local trading centers while women were likely to meet on specific days such as on Sundays or during market days.

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[15] As mentioned earlier, the case of dairy goat groups is unique in that only the name of one spouse is recorded in the register, though the other spouse is also considered a member. This allows the other spouse to join a different dairy goat group.

Information through formal letters was hardly used while minutes were used more by men in their groups than by women. Levels of literacy influenced the extent to which letters and minutes may be used. Spatial spread of members also influenced type of channel for passing information; personal contact is ideal for members who are close to one another.

A majority of the respondents expressed satisfaction with the leadership in their groups with 73 percent of men and 89 percent of women rating it as good. Some 25 percent men and 3 percent women expressed the desire to see some change in the group particularly with respect to leadership/management skills, transparency, and accountability in the utilization of funds. Results indicate that compared to men, women were more contented with the way their group accounts were run. In single-sex groups, men were more concerned about transparency and accountability while women's priority was on leadership change. In mixed-sex groups women frequently acted as the custodians of finances; in these instances, men were typically satisfied with the arrangement, as women are regarded as more trustworthy with money compared to men. This may be explained by the fact that women are generally trusted with money, unlike men. Poor leadership among women is likely to be due to limited capacity rather than lack of vision and cooperation, while men groups are likely to be dogged with dictatorial and uncaring leadership that is also more vulnerable to corruption. In the case of cooperative societies, ordinary members were generally dissatisfied with the way elections were held and mismanagement of funds by some leaders. As a result some members of coffee cooperatives agitated for splitting up into smaller entities. Failure to share benefits and political interference are other reasons that were mentioned as likely to lead to disbanding

of groups, while some members opted out simply because they could not raise the contributions.

COSTS AND BENEFITS OF PARTICIPATING IN GROUPS

Data was available for 131 men and 252 women respondents. Some data was unavailable because: a) for some groups the reporting was by a respondent who did not belong to that group, e.g. a husband reporting on wife's group and vice versa, b) in other cases respondents could not remember how much they had contributed or derived from groups, c) some contributions were difficult to measure. There was no common denominator for measuring time over which contributions were made or benefits shared since groups were of different ages and/or at different stages of implementing activities.

The range of activities differed among groups and between men and women groups. Cases of more than one type of contribution and benefit for the same respondent were common and these were not ranked in order of importance. Cash and labor were the major contributions and women groups were involved in a wider range of activities compared to men groups hence deriving different types of benefits. Building household assets was the major component for women groups and cash shared from merry-go-rounds was mainly channeled back to the household. Loans obtained from groups were mainly for paying school fees and these were to be paid back with interest. To cope with unforeseen circumstances such as illness and death, some groups had agreed on a fixed amount that each member would contribute while a few provided for a fixed amount from the group account. Collective action was important for accessing credit in form of farm inputs among men but not women. This is so given that more men belonged to

cooperative societies which advance such inputs while other groups did not. For men, other benefits included technical knowledge on soil conservation, flower growing, and access to markets while women derived benefits from access to piped water and donation of foodstuffs during weddings or funerals. Among those who had requested some help from their respective groups, 43 out of 51 men (84 percent) and 90 out of 92 (98 percent) women had received some form of assistance. School fees and medical bills were the major items for which assistance was sought.

Whether and how benefits were shared among members was determined by the group purpose, its activities, and the length of time a group was in existence. Some groups shared equally among members (merry-go-round groups), others shared in proportion of contributions to the group (income-generating and credit groups) while some benefits were determined by nature of one's needs (risk-coping groups) and whether the group was intended to provide for such support, especially during a crisis. Only about 10 percent of both men and women reported having not received any benefits from their groups. Cases of benefits not being shared were because: a) group had a specific project/activity that was not yet completed e.g. water project, b) respondent's turn for receiving their dues had not arrived e.g. in case of merry-go-round, c) respondent had not had problems relating to school, medical, or funeral expenses. This scenario seems to bear with the view that the potential beneficiaries of network activities and the proportional distribution of benefits for the individual or group are determined by the situation, purpose, rationale, motivation, and interest of the network participant (Lein and Sussman 1983). Apart from benefits directly related to group activities, groups were cited as an important source of learning and sharing of new techniques and ideas, enhancing

social ties, and assisting people to plan for the future. Good leadership and cooperation among members are recognized by many members as necessary conditions for group success.

INTERACTION WITH OTHER GROUP MEMBERS

Apart from internal group dynamics that facilitate group members to learn from one another, interaction with members of other groups and with external organizations enhances the groups' capacity to internalize what they learn from others to improve on the running of group activities. At the individual level, only 34 percent of men and 10 percent of women belonged to groups that had taken a trip outside their own village. Out of these groups, slightly over 95 percent of the members participated in the trips. The main purpose of the visits was to learn about new farming techniques mainly on coffee production practices, livestock rearing, and soil conservation methods. The responsibility of financing these trips is now shifting from the extension department to group members, who now either bear the entire cost or have to finance the larger share of the budget with the sponsoring agency meeting the rest. Group members may interact with others within or outside their own locality providing an opportunity for people to learn from one another within the group or from others outside their group. In terms of the overall subjective assessment of the groups they belonged to, 52, 26 and 22 percent of men rated success as high, medium and low, while the figures for women were 58, 29, and 13 percent respectively. Although groups tend to share their benefits among their members, in a few cases certain benefits spill over to non-members. The common ones reported include access to the dairy goat through direct purchase or buck service and to

agroforestry technologies availed through nursery groups where people could buy or receive seedlings as gifts from friends as in the case of *calliandra* and fruit trees. Gift exchange is a form of exchange common within families and households, among friends and neighbors and, as Masindano (1990) argues, those who have invested more in society acquire higher social and economic status. Alternatively such exchange can engender a sense of reciprocity and obligation (Fafchamps 1999).

TYPOLOGIES OF INDIVIDUAL AND COLLECTIVE ACTION

Apart from belonging to groups, respondents were asked to identify what form of action they used to undertake a selected range of activities. Some of these activities fall within the productive domain, others are reproductive in nature while some are geared towards meeting the needs of the wider community. These include purchases of farm inputs and sales of outputs, acquisition and breeding of livestock, soil and water management, acquisition of agroforestry technologies, fetching water and fuel wood, meeting expenses for sickness and weddings, taking care of children, and spiritual nourishment. The forms of collective action were categorized as 1) jointly with others, 2) formally through groups, 3) informally through friendship, and 4) informally through family ties.

Individual action was important for making decisions at household level particularly those relating to income generation and expenditure which include selling of crops, buying and selling of livestock and farm produce. Selling of livestock is however not a common practice among many households as it is usually done to meet the demands for cash for other pressing household needs, the most common being paying school fees.

This has particularly increased among households that largely depended on coffee as a cash crop. Due to poor prices and mismanagement of the sector through cooperative societies, a large proportion of farmers had abandoned coffee production in favor of other enterprises with dairy and horticulture taking the priority. The preference for individual action is based on a number of factors that include: 1) the absence of any organized groups in the area undertaking selected activities, 2) lack of trust in groups due to previous bad experiences, 3) ability to meet one's needs from their own resources, 4) variation in peoples' needs depending on their own situation or season.

Acting through family ties appears to be the most important form of collective action used by many households and this reflects a significant upholding of traditional values that recognize the family as the central unit of social life among the communities under study. It should be noted that in times of crises, people are likely to use their wider social networks to cope with such situations, thus we observe a heavier reliance on friends to meet hospital bills and organize funerals. Likewise wedding expenses and the joy of the occasion are shared among these wider networks in the community. Formal groups are important for raising tree seedlings, selling milk, coffee, and tea. Collective action is overwhelmingly desired for helping with large expenditures such as funerals and weddings and for spiritual well-being. There is fairly strong interest in collective action for processing crop output (55 percent of households), selling milk (46 percent), acquiring agricultural information (33 percent), selling crops (32 percent), breeding livestock (30 percent), and obtaining water (26 percent). At the other extreme, there is a strong preference for individual action in obtaining firewood and acquiring and selling livestock.

Although some people may not belong to any organized groups they may nonetheless choose to participate in collective action through *ad hoc* informal groups for certain activities such as maintaining infrastructure (roads, water supply, health clinics) or cleaning the environment. Groups, through their different objectives and activities, are seen to be important by way of 1) easing workload and sharing expenses within a group, 2) disseminating new technologies and sharing of information to a wider population, 3) increasing the bargaining power of producers through collective marketing, 4) cementing social relationships within and between groups thus strengthening bonding and bridging social capital, 5) providing social and economic support in times of crises, 6) attracting support from external agencies.

To many people, familiarity, trust, cooperation, and hard work are basic characteristics that determine the kind of people they link up with to work together in a group. These stocks of social trust, norms, and caring among persons and between persons and their institutions (e.g. Sirianni and Friedland 1998), give communities a sense of identity and common purpose, and people are assumed to relate to one another on an equal basis.

6. CONCLUDING REMARKS

The analysis presented in this paper has shown that a majority of households in the highlands of central Kenya engage in some form of group activity thus demonstrating the importance of collective action for accomplishing a range of activities for different gender categories (see also Kariuki and Place 2002). These people belong to a gamut of active groups in central Kenya, most starting on their own initiative and with a wide diversity of membership in terms of gender and even age. They are very dynamic and take on many new activities often involving income generation.

People perceive groups as important social and economic entities that pursue different objectives in order to achieve some anticipated goal, including improving the income base and reducing the level of poverty obtaining among many households and communities in central Kenya. Through building confidence and establishing networks based on trust, people can share resources, invest in business opportunities, share information and access external support among other advantages. Through this investment in social capital, an individual member of a group can call upon other members to provide the support needed to augment investments in human, financial, natural, and physical capital. People find groups particularly important to fall back on for support during times of distress. Formal collective action, backed by legislative policy is especially important for agencies involved in the marketing of agricultural commodities such as coffee, milk and tea, which require large investments in processing, storage and distribution. Collective action also helps people access technologies and information that

are useful for providing materials, knowledge, and skills for enhancing the management of the natural resource base.

There is an important role for collective action in improving people's livelihoods. It is therefore recommended that development practitioners learn from and integrate relevant models of collective action in programmes that are designed to address issues of food security, poverty alleviation, and environmental health for resource-poor farmers. The Kenya government now recognizes community groups as important focal points for taking development interventions to households and communities to facilitate people-centered development. We therefore suggest that government needs to put in place a gender-sensitive policy framework that encourages formation of and supports mixed rather than single-sex groups. This will ensure that benefits accruing to these interventions will permeate to more members of households and communities, encourage transparency and accountability in the use of funds, and increase investments through group action. This recommendation is based on the findings which indicate that women are more likely to invest in activities the benefits of which feed back to improve welfare of their larger households and that they are more trustworthy with funds while men may have wider links to external sources of resources and information critical for sustaining emergence and evolution of collection. For research, there is need to assess how different functional aspects of groups influence performance and how to better quantify contributions to and benefits from groups. There is also potential to use the results and experiences of this study to better define and situate the role of collective action in research, training, development, and information sharing. We found that many of the institutions experiencing "problems of collectivity" were the coffee and milk

cooperatives that are numerous in central Kenya. However our level of analysis does not dissect the relationship between the collapse or weakening of these institutions and the emergence of other forms of collective action. To make a conclusive judgment, this kind of analysis requires more intensive data at the institutional level rather than depending on the perceptions of members, some of whom may hold biased attitudes if they do not hold positions of leadership in those entities or if their opinions do not coincide with those of the prevailing leadership.

Finally we give an example of a policy constraint that impacts on the formation of water user groups to illustrate the role of policy in influencing the direction and form of collective action. Water groups are registered, like other groups, at the administrative district level. However water is, in most if not all cases, a trans-boundary resource. As such if a certain group wants to extract water from a river or stream it means the interests of others depending on that source have to be taken into account. Suppose that such other users are from a neighboring district. Then if the intention is to form a water users association that brings many groups from across two or more neighboring districts, such an association cannot be registered at the district level as no one group can be registered in two different districts. The process of registration of such associations then becomes subjected to the provisions of an act that regulates registration of societies. Many people see the bureaucracy involved as an impediment to strengthening collective action. Any group wishing to be registered as a water user association will also have to be vetted by the district security committee. People wishing to register such associations then consider this to be undue harassment by government that treats them with suspicion, and viewing them in the context of an entity that might have a hidden political agenda and which

might therefore in future pose a threat to the local political status quo or the wider state security.

Policy makers have therefore an important role to play in terms of reviewing and formulating policy options that are conducive to and support the functioning of institutions for collective action for a wide range of productive, reproductive and community-based activities. And such action necessarily requires participation of the local population for whom such policies are made. Support to local institutions by government is necessary to strengthen collective action and entice people to join and remain in groups. Such support includes building the capacity of smaller groups so as to empower them to mobilize resources for investment in ventures that generate income. And groups, both formal and informal, should be recognized as important players in improving livelihoods of members which feeds into the wider social and economic development.

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