COPING WITH LAND SCARCITY:

THE PATTERN OF HOUSEHOLD ADAPTATIONS IN ONE LUHYA COMMUNITY

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ABSTRACT

This paper presents some preliminary data from a continuing research project concerning the forms of economic adaptation households have adopted in an area of severe land scarcity. Following a discussion of population and land resources in the study area, a single village of East Bunyore Location, Kakamega District, three basic alternative (but not necessarily mutually exclusive) forms of adaptation are considered. The first two forms involve increasing household land resources and making more efficient use of existing land resources. Both emphasize agricultural production as a primary means of support. While these forms are viewed as very important for a limited number of village households, the third form, reliance on non-farm incomes, clearly predominates in the study area.

The paper concludes with a brief outline of the direction for future research. The emphasis for the remaining portion of the research will be on the collection of data which will help to explain the pattern of economic adaptations found in the study area. In particular, attention will focus on how community standards of behavior and obligations extending from various beliefs and values held in the community might influence decisions of resource allocation made within the household.

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Introduction

In an earlier paper (Paterson 1979), I outlined a proposal for field research which takes as its starting point a problem of generalized land shortage within one agricultural community in East Bunyore Location, Kakamega District. There is, of course, no absolute measure for land shortage. It must be defined in relation to certain economic goals and the role land plays in attaining those goals. For example, Mbithi and Barnes (1975:88) have considered the sufficiency of land resources relative to a goal that a family of six should have enough land to fulfill their subsistence requirements and earn an annual income of Shs. 2000. The amount of land needed to meet this standard varies from place to place according to its productive potential. It is clear from Mbithi and Barnes' data however that several areas of Kenya are already feeling the pressures of land shortage having insufficient land resources to satisfy subsistence demands or attain such a target income level under prevailing technologies (see Table 1). These pressures are likely to increase dramatically over the next twenty years as present land holdings continue to be subdivided among sons wanting to establish

Table 1. Suggested Theoretical Carrying Capacity and Actual Carrying Agricultural Land in Selected Districts and Sample Area.

District	Land Resources per Family of Six			
	Hectares needed for income of Shs. 2,000/year plus subsistence	Approx. hectares available based on 1969 census	Shortfall	
			Ha.	As % of hectares needed
Kisumu & Siaya	4.5	3.7	0.8	18
South Nyanza	7.0	5.2	1.8	26
Kisii	2.25	2.0	0.25	11
Kakamega	3.5	2.5	1.0	29
East Bunyore		1.1	2.4	69
Sample Village		(1979 0.56 figure)	2.94	84

Source: Derived in part from Mbithi and Barnes (1975:88).

new households of their own. As the average land base for individual households continues to decline with the subdivision of finite land resources, the question of how to deal with problems associated with land scarcity in Kenya looms ever larger.

The field research to be described in this paper has focused on a single agricultural community which, by Mbithi and Barnes' standard (derived from the Swynnerton Plan), could be characterized as having an acute land shortage. As noted in Table 1, for the sample "village" the "average" family of six would have only 0.56 hectares (about 1.4 acres) of land. This is far below the 3.5 hectares suggested as the amount required in Kakamega District to meet subsistence needs and provide an income of Shs. 2,000 annually. If the predominant techniques of subsistence agriculture, limited by inadequate land resources, are no longer able to satisfy the needs of the average family (as is indicated by these statistics), by what other means are those needs being met? One of the primary goals of this research is to answer this question. To this end, more specific questions underlying a survey of the sample community are as follows:

(1) Has "land shortage" been minimized by the acquisition of additional land resources in other areas (outside Bunyore) - land that would not appear in statistics such as in Table 1?

(2) Is land being transferred within local areas (i.e., Bunyore and the sample community) enabling at least some people to acquire the additional land they need (while at the same time, decreasing the holdings of the sellers)?

(3) Have people adopted more productive farming methods and technology to increase subsistence yields?

(4) Have they turned to cash crops having higher values than the common subsistence crops?

(5) What role do wage employment, business, and other forms of self-employment take in the income profile of the household?

The answers to these questions should go a long way in providing an economic outline of the community, at the same time, indicating the different ways in which people in the sample community have adapted to land scarcity.

The various actions suggested by the questions above; e.g., entry into the labor market, business investment, farm moderization, increasing one's agricultural base through land acquisition, etc; can all be viewed as choices from among a number of alternatives for allocating the productive resources (land, labor, capital) of the household. From the survey (referred to earlier), I have compiled an

inventory of the major productive resources available to each household. I also have a record of how these resources have been and are currently being utilized. As the final part of this research, I am now engaged in the study of how decisions are made with regard to the allocation (i.e. use) of such household resources. This aspect of the research will be elaborated further at the end of the paper. In the following section, I present some of the major economic and social features of the community as determined from the community survey and personal observation.

Description of the Sample Area

As indicated in the previous section, the sampling universe for this research is a single community within East Bunyore Location, Kakamega District. The Abaluhya residents, when referring to their community in English, call it a "village" and, for lack of a better alternative, I shall do the same. The term could possibly be misleading in that it often connotes a clustering of dwellings in an area distinct from the surrounding countryside. In Bunyore, on the other hand, dwellings are dispersed throughout the countryside, situated on a portion of each family's farm lands. Villages have precise borders which are defined by the boundaries of the various clan lands within them. In the case of the sample village, a small portion is detached from the main area, completely surrounded by another village. At the boundary of one village begins another, although there is usually no obvious distinction between the two.

Within the village, the household was chosen as the most appropriate unit for study as it represents the minimal independent economic unit. The Central Bureau of Statistics (Kenya 1977:20) has defined a household as "A person or group of persons living together under one roof or several roofs within the same compound or homestead area and sharing a community of life by their dependence on a common holding as a source of income and food, which usually but not necessarily involves them in eating from a 'Common Pot'. For this research, I have broadened the definition of a household in two ways. First, I have expanded it to include persons living away from the household and village for such purposes as employment or schooling but who would otherwise be resident in the compound and consider it their home. Second, in addition to the notion of the living group's "dependence on a common holding as a

source of income and food," I have used as an alternative, the idea of the living group sharing a common dependence on the food and income generating resources of its members. This more appropriately reflects the situation in Bunyore where wage incomes not related to the holding are of primary importance for the maintenance of the living group (i.e., household).

The household survey sampled approximately 98% of all households in the village. One problem encountered in the sampling is that many households have one or more places of residence outside the village in both urban and rural areas. There are a number of households that occupy their village homes for no more than a month or two during an entire year. Three non-resident households have not been included in the survey because of their non-availability for interviews.

One hundred sixty-six households including 1123 members were covered by the survey conducted over an eight month period from October, 1978 through May, 1979. The composition of these households is shown in Table 2 (on the following page), broken down into categories of residence, age, and sex. The average (mean) household has just under seven members (6.8), but it can be noted from the table that approximately 23% of all households members (1.6 per household) live outside the village. Looking more closely at the composition of this non-resident group, we find that about 77% (201 of 262) of those in this category are males. The high rate of out-migration for males, especially within the 18-59 age group, is perhaps the most interesting statistic from Table 2. Of the 248 males between the ages 18 through 59, 168 (representing nearly 68% of this category) were found to be residing outside the village.

Not shown in these statistics is the fluidity of the non-resident group. Practically all men of the village have been members of this group over different periods of their lives and for varying lengths of time. While some men are leaving the village for work or to look for work; others, having been dissatisfied with their employment, or having retired, or been terminated, are returning home "for a rest" or to pursue other income generating activities within the village.

Table 2. Population of Sample Village by Residence, Age, and Sex; 1979.
N = 166 households. (Due to rounding, sums may not equal totals.)

	MALES				FEMALES				TOTAL			
Household members:	Number	Household Average	% of Total	% of 18-59 Age Group	Number	Household Average	% of Total	% of 18-59 Age Group	Number	Household Average	% of Total	% of 18-59 Age Group
Total	587	3.5	100	--	536	3.2	100	--	1123	6.8	100	--
Resident	386	2.3	65.8	--	475	2.9	88.6	--	861	5.2	76.7	--
Non-resident	201	1.2	34.2	--	61	0.4	11.4	--	262	1.6	23.3	--
Total Age 18-59	248	1.5	42.2	100	204	1.2	38.1	100	452	2.7	40.2	100
Resident Age 18-59	80	0.5	13.6	32.3	176	1.1	32.8	86.3	256	1.5	22.8	56.6
Non-resident Age 18-59	168	1.0	28.6	67.7	28	0.2	5.2	13.7	196	1.2	17.5	43.4

The sample village is situated on 199.6 acres (80.8 hectares) of high potential agricultural land. Table 2 shows the resident population on this land to be 861, a population density of 1,066 per square kilometre (2,761/mi^2). For comparison, if the annual growth rate of the sample village can be estimated at 4% since the 1969 census, its population density in 1969 would have been approximately 720/km^2. This figure is about one third larger than the location-wide average of 530/km^2 for East Bunyore in 1969.

The land of the village has been officially divided into 255 parcels among 198 owners. Most households, although not all, have at least one parcel registered to one of their members and it is not unusual to find more than one land owner within a household. Of those owning land in the village, twenty percent have two or more parcels registered to them. Table 3 (on the next page) displays the land resources of the village according to four different units of classification: (1) separate parcels of land as recorded at the Kakamega Land Registry, (2) the combined holdings of each land owner of the village, (3) household land, and (4) pieces of land not allocated to village households.

Table 3. Land Resources in the Sample Village.

Land Classification	Number	AREA IN ACRES				
		Total	Mean	Median	Mode	Range
Registered Parcels	255	199.6	0.8	0.5	0.5	0.1 - 7.5
Holdings of Registered Owners	198	199.6	1.0	0.7	0.5	0.1 - 7.5
Household Land	160	176.3	1.1	0.8	0.7	0.1 - 9.3
Pieces not Allocated to Village Hlis	30	23.3	-	-	-	-

The category "household land" refers to all land that the household owns within the village which has not been loaned or rented to another household. Any additional land which the household has borrowed or rented in the village is also included in this measure. Six of the households are landless within the village. Another three non-resident households have reallocated their lands to other households.

The records of the district land registry were an important source of data in determining the distribution of land resources within the sample village. There were a number of problems, however, in trying to relate this data to the idea of a household land base. One of the first problems encountered was the numerous unofficial and, therefore, unregistered parcel subdivisions in the village. In some instances, two or three separate households were found to be using segments of a single parcel of land. In all, twenty-four parcels had been subdivided in this way at the time of the survey. Several of these are intended only as temporary arrangements but the majority are likely to be permanent.

Another problem in trying to ascertain the household land base from the registry is that not every land owner is the head of a household in the village. It is not possible to simply run through the list of land owners and assume that each different name represents a separate household in the village. A number of parcels are registered to boys or young men who are still members of their parents' households. Nineteen parcels are registered to former inhabitants of the village who have permanently migrated to other areas. Some of their parcels have been informally allocated to village residents while others lie in fallow. Finally, twenty-three parcels were found to be registered to men who have died. While some of their households have maintained an independent status, a number of them have merged with other households.

So as to take these factors into account, the household land category has been created in an effort to reflect land use patterns more precisely than what could be inferred from the records of the district land registry. As can be seen from Table 3, not all the registered holdings of the village are available for use by the village households. In reclassifying the registered holdings into the household land category, thirty pieces of land (not necessarily complete parcels) amounting to 23.3 acres could not be included as part of the land base of the 166 households surveyed. The three households not included in the survey account for about three acres of this total. Two churches and a nursery account for another 0.7 acres. The remaining amount belongs to people who are no longer members of the village and who have not reallocated their holdings to village households. While the mean size of the holdings of registered owners is 1.0 acres, Table 3 shows that when this land is distributed among the households, the mean size of household land is 1.1 acres. The difference of 0.1 acre is certainly not great in absolute terms but, as a 10% increase, it is not insignificant.

What is perhaps more interesting is the distribution of land within the registered owners and households categories. Tables 4 and 5 on the following page show this distribution for each category according to various size intervals. Table 5 indicates that the land resources of 83.2% of the village households are less than 1.6 acres (intervals one through five). These households occupy 56.3% of the land.

in the household category. Similar percentages are found in Table 4 for registered land owners having holdings of less than 1.6 acres. However, within the 0.1-1.5 acre grouping, household land resources are more evenly distributed throughout the first five intervals in Table 5 than the distribution of the holdings of registered owners in Table 4.

As mentioned earlier, the distribution of land among households reflects numerous unofficial subdivisions and arrangements

Table 4. Distribution of Village Land among Registered Owners by Size of Holdings.

Interval	Holding Size (Acres)	Number of Registered Owners	Area of Registered Holdings (Acres)	Percentage of Registered Owners	Percentage of Registered Land
1	0.1 - 0.3	34	9.6	17.2	4.3
2	0.4 - 0.6	53	26.2	26.8	13.1
3	0.7 - 0.9	40	30.8	20.2	15.4
4	1.0 - 1.2	23	25.9	11.6	13.0
5	1.3 - 1.5	13	18.3	6.6	9.2
6	1.6 - 1.8	14	24.0	7.1	12.0
7	1.9 - 2.1	3	5.9	1.5	3.0
8	2.2 - 2.4	7	15.8	3.5	7.9
9	2.5 - 3.0	4	10.7	2.0	5.4
10	3.1 - 7.5	7	33.4	3.5	16.7
Totals		198	199.6	100.0	100.0

Source: Kakamega District Land Registry.

Table 5. Distribution of Village Land among Households by Size of Household Land.

Interval	Size of Household Land (Acres)	Number of Households	Area of Household Land (Acres)	Percentage of Village Households	Percentage of Household Land
1	0.1 - 0.3	26	6.1	16.3	3.5
2	0.4 - 0.6	35	16.9	21.9	9.6
3	0.7 - 0.9	30	23.4	18.8	13.3
4	1.0 - 1.2	21	23.4	13.1	13.3
5	1.3 - 1.5	21	29.3	13.1	16.6
6	1.6 - 1.8	6	10.4	3.8	5.9
7	1.9 - 2.1	5	10.3	3.1	5.8
8	2.2 - 2.4	4	9.0	2.5	5.1
9	2.5 - 3.0	4	10.9	2.5	6.2
10	3.1 - 9.3	8	36.6	5.0	20.8
Totals		160	176.3	100.0	100.0

Source: Household survey of the village.

transferring certain rights in land from those having "surplus" land to those desiring more. These may be temporary arrangements as, for example, when a non-resident household allows relatives or friends to use their land in their absence. The subdivision of a father's land among several sons, even though unofficial, is more often a permanent change. As can be seen from Table 5, the effect of such unofficial transfers does not by any means ensure the equal distribution of land resources among village households but it can be particularly helpful to those households with little or no land. Interestingly enough, many of the households having the smallest land resources have adpated in such a way that they do not need to depend on land as a source of food and income. Some of these households have, in fact, reallocated their meager lands to friends and relatives. The form of such adaptations will be considered later in the paper.

Alternatives for Dealing with Land Shortage

Having, in the previous section, provided some background on population and land resources within the study area, it is now appropriate to return to the questions posed in the introduction and discuss some of the issues they raise. In essence, the questions reflect three basic approaches or alternatives for dealing with land shortage: (1) acquisition of additional land resources, (2) more efficient utilization of existing land resources, and (3) reliance upon externally generated (i.e., non-farm) sources of income to compensate for deficiencies in agricultural production. In varying degrees, all three approaches are evident within the village. In some cases, two or even all three strategies can be seen operating within a single household.

(1) Acquisition of additional land resources

Village households have been able to increase their land resources by several means. Table 6 (below) shows where households obtained additional land and the way it was acquired. Temporary loans of land to friends or relatives from separate households (for example; brother to brother, son to father, neighbor to neighbor) have been included in the "borrowed" category. Unofficial subdivisions which are likely to be permanent are not included in this category.

Table 6. Acquisition and Location of Land Resources.

Method of Acquisition	LOCATION: Within Village – Number of Acquisitions	Within Village – Number of Households	In Nearby Village – Number of Acquisitions	In Nearby Village – Number of Households	Outside Bunyore – Number of Acquisitions	Outside Bunyore – Number of Households	Totals – Number of Acquisitions	Totals – Number of Households
Rented	1	1	2	2	1	1	4	4
Borrowed	33	30	3	3	7[2]	7[2]	43	40
Purchased	4[3]	4[3]	5	4	24[1]	24[1]	33	32
Totals	38	35	10	9	32	32	80	76

1 Since 1963
2 Since 1964 (Land was given for use after paying a small fee to headman).
3 Since 1970

Table 6 indicates that thirty-two households acquired land outside of Bunyore since 1963. Nineteen households purchased land in settlement schemes (most in the 10 to 31 acre range) around Lugari and Kitale. Seven migrated to Samia, Uganda where they farmed areas of approximately six acres each. (The rights of tenure in this case are not clear from the informants descriptions.) The physical environment at Samia was not very hospitable and subsequently four of those households returned to Bunyore. Four more village households purchased two to three acre pieces of land in neighbouring Kisa Location. Another has recently purchased twenty acres in Busia and one is currently renting near Kitale.

Twenty-four of these households (plus the four returning from Samia) have retained their rights in village land but only five of these (and those from Samia) have been classified as "village households" for purposes of the survey. These five households have continued to live in the village with members dividing their time between village and outside residences.

Turning now to the "within village" category of Table 6, the thirty-eight acquisitions noted represent about twelve percent (23.7 acres) of the village area. This land has been redistributed among thirty-five different households or approximately twenty-one percent of all village households. The average increase in land resources for this twenty-one percent is just under 0.7 acre. Looking at where this redistributed land comes from, we find an important link between "outside" acquisitions and those "within" the village. With each household that leaves the village migrating to outside land, pressures on the village land resources are reduced. It removes one more household from potential competition for "within the village" acquisitions and land held by migrant households may be either sold or otherwise redistributed among village households. For the survey village, nineteen migrants hold village lands amounting to 16.2 acres (8.1% of the village area) but of this, 10.3 acres has been redistributed among village households. This is a little less than half of the total amount of land which has been redistributed in the village.

It was difficult to obtain complete data on land included in the "nearby village" column. Three of the five purchased parcels from this category amounted to 5.6 acres (mean 1.9 acres) and one of the two rented plots was about two acres. No measures were available for borrowed plots but descriptions from informants indicate that they would be comparable in size to such acquisitions within the village.

What conclusions can be drawn from these statistics of land size, acquisition, and distribution? First, they indicate that the statistics shown in Tables 3 and 5 fairly accurately reflect the realities of scarce land resources among village households. The tables are not, for example, concealing by their omission significant land resources held by village households outside of the village. Tables 3 and 5 do not however take into account the additional land of the five village households who made purchases outside of Bunyore. Four of these five now have land resources in excess of the 3.5 hectares (8.65 acres) suggested in the introduction as necessary for self-sufficiency in subsistence production. The two tables have also omitted the twenty-three former village households who have likewise improved their positions through land acquisition outside. This omission exemplifies one of the shortcomings of a village study based on household units. Although they are no longer a part of the village, these households still exert an impact there with regard to land distribution and their absence from the village may also be felt in other spheres--political, economic, and social.

Table 6 shows that very few households have increased their land resources through local purchases. In fact, very few parcels, even those lying idle year after year, are ever offered for sale. This may, in part, be related to sociological and psychological dimensions of land ownership which put a far higher value on land than its economic potential alone would demand. Looking, however, at the other side of village land transactions, anyone contemplating buying one of the relatively tiny parcels of village land strictly for its agricultural potential is likely to decide that his money would be better spent elsewhere.

From Tables 5 and 6, we can conclude that while local redistribution of land is certainly important in supplementing the land bases of households which are deficient, it does not fundamentally alter the prevailing condition of scarce land resources. The fact that village households (only one of which theoretically could be self-sufficient from subsistence agriculture) are willing to reallocate 13.4 acres of their land to their relatives and neighbors suggests that they are relying in no small measure upon something other than subsistence production.

The settlement schemes which opened in the mid-1960s presented an opportunity for village households to secure the land base necessary to succeed as fulltime farmers. As already indicated, most of the twenty-four households purchasing land outside Bunyore obtained at least the 3.5 hectares suggested as sufficient to provide for the subsistence needs of a family of six and generate an income of Shs. 2,000 annually. At the time the settlement schemes were opening, a villager could initiate the purchase of a four hectare farm for as little as Shs. 81/=. Now, as the settlement schemes have filled, there are few options but to obtain such land through private sources with purchase prices in the range of 20,000 to 50,000 shillings. It is ironic that because of such high prices, the alternative of purchasing farms of moderate size outside Bunyore is essentially closed to nearly all but those few who are already relatively well-off financially and who do not need to rely on agriculture for their livelihoods.

(2) More efficient utilization of existing land resources

To this point, discussion concerning the sufficiency of land resources has assumed that land would be cultivated under prevailing forms of subsistence agriculture. In Bunyore, the prevailing form of agriculture is based on a hoe technology and centres around the staple crop maize which (in most areas) is grown twice per year during long and short rains. Local varieties of maize are interplanted with cow peas, beans, or to a lesser extent with groundnuts. Grown separately from maize are bananas cassava, local varieties of potatoes, groundnuts, and kale. By far the largest portion of a holding's area is devoted to maize production, allowing little room for rotation with these other crops. It is also the case in the sample village that many holdings, particularly the smallest, are cultivated year after year without fallow. As might be expected under such conditions, village residents have indicated that soil fertility has declined over the years. The use of commercially manufactured fertilizers,

herbicides, and insecticides is not widespread but to help improve soil fertility, people are careful to save animal manure, ashes, and other organic refuse for application in their fields. These are usually not available in sufficient quantities, however, to cover more than a small area of a household's land each season.

In order to have some indication of the level of support village households derive from their subsistence production, estimates of maize production and consumption were obtained from tewnty-six households having a distribution of land resources roughly equivalent to that of the village. Over half of these households reported yields of less than twelve debes per acre. (A debe is approximately twenty litres and one debe of maize weighs about fifteen kilograms.) For the middle fifty percent of the sample households, the average monthly consumption of maize for an adult ranged between 0.75 and 1.25 debes. (For computation, children under age thirteen were assumed to eat half as much as adults.) Comparing production to consumption we find that the average household growing local maize is able to satisfy about a third of its domestic maize requirements from household production. (The range was from six to seventy-nine percent with the middle fifty percent of the households producing between twenty and fifty percent of their total consumption.) These figures have been derived from farmers' own estimates of their households' production and consumption of maize and no formal procedures were used to check their accuracy. However, detailed accounts of the incomes and expenditures of thirteen village households, collected over periods of no less than six months, lend independent support to the reliability of farmers' estimates. These accounts show maize purchases and can be used to indicate total maize consumption, based on the costs on grinding maize to flour (and making adjustments for small but predictable quantities of maize not ground). While the analysis of these accounts is not yet complete, preliminary figures point to production and consumption levels well within the range suggested by farmers' estimates.

As can be seen from these statistics, the "prevailing form" of subsistence agriculture, limited by scarce land resources, is not satisfying the subsistence needs of households in the study area. A number of households have tried to overcome some of the constraints of land shortage by adopting agricultural practices which utilize their scarce land resources more efficiently than the prevailing form described above. They have done this in two ways: (a) They have increased the yield of their

staple crop, maize, by planting hybrid varieties and using recommended fertilizers. (b) They have replaced some of their subsistence crops with cash crops of higher value.

(a) Hybrid maize

When adopted as part of a larger set of technical procedures, material and labor inputs hybrid maize can produce yields many times greater than local varieties. Following recommended procedures, average yields for hybrid maize in Kenya should be something in the range of sixty to seventy-two debes (ten to twelve, ninety kilogram bags) per acre. In contrast, among households of the study area, the average yield for local maize has been about twelve debes (two bags) per acre over the last two growing seasons. Not surprisingly, there has been fairly widespread interest among village households in the use of hybrid maize. About half of all village households have, at some time, planted it. However, while many have tried hybrid, very few have adopted it for use on a regular basis. At any given time, the percentage of households actually growing hybrid is relatively small, perhaps five to ten percent. On the average, households using hybrid increased maize yields by roughly twenty-five percent to fifteen debes per acre. While this does represent a small increase, this level is but a quarter of the potential yield for hybrid maize.

Such low yields are no doubt an important reason why the interest expressed in hybrid has not been translated into the widespread production of hybrid in the village. In the production of local maize, the costs of material inputs (seed and fertilizer) are low with perhaps no cash expenditures required. In contrast, the costs of material inputs for the cultivation of hybrid maize are significant, running as high as Shs. 400/= per acre following Ministry of Agriculture recommendations. In planting hybrid maize, most village households come nowhere near this level of expenditure. Many households do not go beyond the intitial expenditure for seed (for one acre, ten kilograms at Shs.40/=) and use non-commercial, farm-produced fertilizers only. Those using commercial fertilizers generally do so at levels far below those recommended. Much of the relatively poor performance of hybrid maize in the village can probably be attributed to this lack of fertilizer.

Data from the village indicate that low level expenditures (per acre) on hybrid maize offer very low rates of return. If, for example, a farmer plants an acre of hybrid with the relatively low expenditure of

Shs. 60/= for seed and fertilizer, he must improve his output by at least three debes (at a value of Shs. 20 per debe) just to break even. It should be recalled that the average increase in yield for village households using hybrid is about three debes per acre. Thus, it is not surprising to see few households continuing to invest in hybrid at such low levels. The question remains as to why village households are not investing in hybrid at higher and (presumably) more profitable levels. At this point in the research, the answer is merely speculative. Beyond the fact that it is simply more difficult to accumulate a large sum for investment, it should be noted that low level investments as trial experiences in hybrid certainly do not offer a lot of encouragement for larger scale investments. In addition, there are no farms in the area which could serve as models of hybrid productivity. Finally, as we go on in this paper to review some of the possible alternatives for household investment, we will see that many people have chosen a form of low risk business investment in trading or basket manufacture which functions in many ways like a savings account, accumulating interest in the form of profits and at the same time allowing quick conversion of inventories to cash when required. An investment in hybrid maize has neither the security nor the liquidity of such business investments.

(b) Cash crops

While it would be rare for any of the households in the village to ever produce what they could consider a surplus of maize, many households do sell small quantities of other subsistence crops which are in excess of their immediate requirements. After harvest, an extra debe of beans or one third debe of groundnuts sold at market can bring Shs. 40. Bananas can be sold perhaps two or three times a year at Shs. 20 a bunch. Vegetables such as the leaves of cow peas or kale might earn ten or twenty shillings over the year. While these crops are grown with the hope or anticipation of some surplus that could be sold, they are primarily intended for home consumption.

There are, however, a small number of households growing crops specifically with the intention of sale. The most important of these crops are sugarcane, onions, tomatoes, cabbage, and kale. Except for kale, which is fairly common, these crops are not widely cultivated in the village. Two other non-food cash crops are also important locally; grass as thatching material, and trees in building construction and for firewood. Additionally, Bunyore households have recently been encouraged

to develop plots of pawpaw trees, the fruits of which are to be tapped for a latex substance containing the enzyme papain. Several households are now experimenting in this.

Table 7 shows the primary agricultural products grown for sale in the village and the number of households growing each item at the time the household survey was conducted (see below). As the table indicates, cash crop farming is not a well developed feature of the village economy. Only twenty different households are represented in the table. It should be pointed out, however, that with each growing season, other households are entering the cash crop arena while some are withdrawing. In the course of the survey, a half dozen farmers indicated that they had grown cash crops in the past and several more had plans to plant such crops the next season.

Table 7. Cash Crops in the Village and the Number of Households Growing Each Crop.

Cash Crop	Number of Households Growing Crop[1]
Sugarcane	4
Cabbage/kale	8
Onions	6
Tomatoes	5
Trees	6
Grass	6
Pawpaws	3

1. Twenty of 166 village households represented.

The scale of cash crop operations in the village is small. For example, none of the nineteen plots used in growing vegetables was more than 0.3 acre. A sampling of cash crop production will serve to illustrate this small scale. One farmer's 0.05 acre plot of tomatoes grossed Shs. 70. Another farmer sold eighty cabbages from his 0.1 acre plot for a shilling each. Kale from a 0.2 acre plot satisfies the domestic needs of one household and earns them an additional Shs. 200 a year. Over a six month period, one household growing half an acre of sugarcane grossed Shs. 400. Faring even better, onions from a 0.2 acre plot brought one farmer Shs. 1200.

Looking at the gross annual incomes from cash crops for the twenty households, we find a very wide range. The highest income was

something in the order of Shs. 4000. Several households earned between 1000 and 2000 shillings but most households (probably seventy-five percent) were in the 100 to 300 shilling range. Clearly, cash crop production is not a major source of income in the village and it is not the primary source of income for any village household. It should be noted, however, that for all twenty households growing cash crops, the value of those crops per unit area was greater than the value of local maize for an equivalent area. Using the figure twelve debes per acre as the average yield for local maize in the village, the value of an acre of maize would be about Shs. 240 at current prices. Comparing the value per acre of the previous examples only, we find an acre of tomatoes to be worth Shs. 1400; cabbage, Shs. 800; kale production for six months, Shs.500; sugarcane, Shs. 400 (one fourth of the total crop harvested over six months); and an acre of onions, Shs.6000.

It is an interesting fact that of the fourteen households found to be growing cash crops other than trees or grass, thirteen were headed by resident adult males and the fourteenth had a resident adult son acting as farm manager. In addition, all but one of the households which had in the past grown cash crops or who were planning to do so in the future were also headed by resident adult males. This suggests a strong negative correlation between male household heads residing outside the village and the adoption of cash crops by their households. Such a negative relationship does not exist between non-resident male household heads and the adoption of hybrid maize. In fact, there appears to be no correlation whatsoever between the residence of household heads and the adoption of hybrid maize.

These findings present some interesting questions to pursue; (1) Is the presence of the male household head a crucial factor in the adoption of cash crops? And if so, why? (2) How can the difference in the patterns of adoption for hybrid maize and cash crops be explained? (3) Why are more households not participating in the apparently successful endeavor of cash crop farming? (4) Why haven't the households already engaged in cash cropping expanded their operations? (All but one had land for potential expansion.) These and other related questions are topics for study as this research continues.

(3) Reliance on externally generated (non-farm) income

We have seen that with the "prevailing form" of agriculture, households in the study area have been able to provide for only a fraction

of their subsistence requirements from the village land resources available to them. At the same time, very few households have been able to secure additional lands outside the village to compensate for their land deficiencies. Despite this, few households have adopted agricultural innovations which make their lands more productive. Instead, the household survey has found that most village households rely, to a very large extent, on incomes earned from sources not related to their own agricultural endeavors.

Table 8. Employment of Village Household Members by Job Categories.

Job Category:	Number of people engaged in activity:
I. Labor	58
A. Casual Labor	21
1. Local	9
2. Outside	12
B. Industrial	13
1. Construction	3
2. Sawmill	6
3. Other	4
C. Agriculture	24
1. Coffee	4
2. Tea	5
3. Other	15
II. Service Work	64
A. Domestic	22
1. Cook	6
2. Gardener	4
3. Other	12
B. Business/Institutional	42
1. Cleaner/laundry worker	2
2. Waiter/waitress	4
3. Transport/deliveryman	5
4. Watchman	16
5. Shop worker/sales clerk	3
6. Other service work	12
III. Semi-Skilled/Skilled	35
A. Carpenter/furniture maker	8
B. Electrician	5
C. Mason	8
D. Tailor	3
E. Metal Worker	3
F. Machine attendant/operator	3
G. Other	5
IV. Semi-Professional/Professional	38
A. Medical officer/nurse	5
B. Teacher	7
C. Police officer	1
D. Pastor	4
E. Business manager	2
F. Clerk	12
G. Other	7

V. Business/Trading/Crop Sales..... 62
A. Hotel operator..... 2
B. Retail shop operator.....6
C. Market trader.....37
1. Banana seller/distributor.....6
2. Basket seller.....5
3. Fowl and stock sellers.....3
4. Produce, staples, charcoal sellers 20
5. Goods sellers..... 3

D. Sales of farm produce..... 14
E. Other business..... 3

VI. Local Activities.....25
A. Basketry.....22
1. Manufacture..... 17
2. Distribution..... 5

B. Other..... 3

VII. Looking for employment..... 29

For the 166 village households, the survey shows 282 major sources of earned income, only fourteen of which were directly related to household agricultural production. These income generating activities are listed according to various job categories in Table 8. The number of people engaged in each of these activities is also indicated. The table shows a fairly wide range of jobs with each category well represented. Service jobs provide the most employment with business, trading, crop sales and the various unskilled labor jobs following close behind. Each of these categories represents a little more than twenty percent of the village's earned income sources.

Table 9. shows where these sources of income are located and under what terms they are earned (i.e., self-employment, casual, or wage and salaries employment). The self-employed category of Table 9 corresponds roughly with the business, trading, crop sales category of Table 8 but also includes eight positions in the semi-skilled/skilled category and the local activities category except for basket distribution. The casual labor grouping is the same in both tables and the wage and salaries category takes in the remaining positions which predominate in the labor, service work, semi-skilled/skilled, and semi-professional/ professional groupings.

Table 9. Sources of Income for 166 Village Households by Location and Kind of Employment

Kind of Employment	Location of Employment: Local			Outside East Bunyore			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Self-employment	47	18	65	24	3	27	71	21	92
Casual Labor	6	3	9	10	1	11	16	4	20
Wage and Salaried	22	10	32	127	11	138	149	21	170
Total	75	31	106	161	15	176	236	46	282

From Table 9 it can be seen that self-employment is an important factor in the local area, providing more than twice as many income sources as wage and salaried positions. Overall, however, local employment for males is greatly overshadowed by employment opportunities outside East Bunyore, especially in the wage and salaried sector. Nearly seventy percent of all the income sources exploited by males are outside East Bunyore and fully eighty-five percent of all the wage and salaried positions held by males are outside the local area. Within the local area, females directly participate in about thirty percent of the income-generating activities, most of these being in the self-employment grouping and especially in market trading. Outside Bunyore, women are involved in only eight percent of the different income generating activities.

A discussion of the sources of earned income is, of course, only part of the story. It says nothing of the level of income derived from any one source nor does it consider the return on one's investment of labor, capital, or other resources. Indeed, of the sources listed in Table 8, there is a tremendous disparity in the level of earnings derived from the different income generating activities, not to mention considerable differences among the same activities. On the one hand, there are, for example, the small local traders working two or three days per week earning anything from a shilling or two a day up to nine or ten. On the other hand, there are the teachers, civil servants, and the business managers earning a thousand shillings a month up to several thousand.

The incomes from work outside East Bunyore are generally higher than those earned in the local area. Most of the skilled and professional occupations which have relatively high pay scales are found outside the area. Even for other occupations which are found both within East Bunyore and outside there are considerable differences. For example, there are seven village residents who work locally as watchmen, most earning around a hundred shillings per month. Watchmen working outside Bunyore in cities and towns would be likely to earn in the range of Shs. 300-500 per month. With agricultural labor it is a similar situation. The monthly wage paid to agricultural laborers in Bunyore is from 80 to 120 shillings a month. Villagers doing agricultural work in the tea and coffee estates or on large farms said they earned between 225 and 650 shillings per month (during seasonal peaks).

Many of the activities included in the self-employed/local grouping of Table 9 are conducted on something less than a fulltime basis. People's committments to these activities vary along with other demands on their time from farming, social, or religious concerns; other family and personal considerations. In trading activities they, of course, respond to seasonal variations in supply and demand. Because of so many variables, it is difficult to talk about average incomes for traders, basket makers, and the other self-employed individuals. At the time of the survey, for example, some basket makers filling bulk orders were making twenty or thirty baskets in a month. Others were content in producing around five to ten each month. Thus, monthly earnings from basketry varied accordingly in the range of 10 to 100 shillings. The production of individual basket makers can also vary considerably from month to month with farm labor requirements, special demands on their income, the demand for baskets, and the state of their helath. (Many complained of different ailments.) A producer might work very hard each day for a month to fill orders for fifty baskets but then the next month he might not make any.

Despite the many variations in the way self-employed activities are performed and the income derived from them, there are some general trends which for market traders and basket makers have been shown in Table 10.

Table 10. Distribution of Market Traders and Basket Makers by Sex and Location of Employment with Estimates of the Range of Monthly Incomes.

	Local			Outside			Total			
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Range of Monthly Income Shillings
Market Traders Banana Sellers	0	1	1	4	1	5	4	2	6	200 - 800
Produce, Staples, etc.	1	16	17	2	1	3	3	17	20	under 50 (14 local, 1 out) 400 - 600 (3 local, 2 out)
Fowl and Stock Sellers	2	0	2	0	1	1	2	1	3	100 - 200 (2 cases, Local) 200 - 400 (1 case, out)
Basket Seller	0	0	0	5	0	5	5	0	5	400 - 700+
Goods Sellers	3	0	3	0	0	0	3	0	3	50 - 100
Subtotal	6	17	23	11	3		20	37		
Basket Makers	17	0	17	0	0		0	17		10 - 100
Total	23	17	40	11	3	1	20	54		

All of the listings in the table represent self-employed activities except for one, banana distribution, performed by a village resident supplying her sons' business outside. In the local area, women deal almost exclusively in produce, staples, and charcoal sales while men predominate in other areas, particularly basket making. Outside Bunyore, men predominate in the employment statistics for market trading (78.6%), primarily in banana and basket sales. As in Table 9 over seventy percent of all the self-employed activities listed in Table 10 are found locally. If we look through Table 10 and compare the range of monthly incomes for local employment with those for outside employment, we find the outside activities earning substantially more. This does not necessarily mean, however, that the rate of return on labor invested in outside interests is substantially higher since, as has been already mentioned, many of the local self-employed activities are conducted only on a part-time basis. Outside employment, on the other hand is likely to be full-time. Perhaps it is because of this that only three percent of all male workers outside earn more than one income. This contrasts with the local area in which about seventeen percent of all men are engaged in two or more income generating activities.

The casual labor category by its very name suggests work that is not done on a regular basis. In the village the most common sort of casual labor for both men and women is farm work, usually in preparation for planting and then later in weeding. Men are also employed to dig ridges and troughs to control rain water and prevent erosion. Women can often earn extra money carrying water in the village or loads of baskets or bananas to the train station five kilometres away. Daily rates for agricultural labor are uniform for the area with men receiving Shs.5 per day and women Shs.4. A noon-time meal is often provided in addition. Outside Bunyore, casual labor means doing essentially the same unskilled service jobs, agricultural and industrial labor jobs categorized in Table 8 but on a short term, temporary basis. The pay for these jobs is near the level of comparable wage and salaried positions but generally lower.

Most men doing casual labor outside Bunyore are interested in obtaining permanent employment and casual labor helps sustain them in the interim while searching for a position. Within the village, casual labor is a source of income for men who have tried but failed to find employment outside. It is also a small but important source of income for young widows trying to support families.

Wage and salaried employment along with self-employment outside Bunyore are usually performed on a full-time basis. As such, incomes from these sources are, in most cases, much higher than earnings from self-employment and casual labor based in the local area. As might be expected there is a relatively low rate of turnover for the personnel engaged in these activities . In the lower income fields of basket making and market trading there is a much higher turnover. Quite a large core of individuals are continually entering and withdrawing from these fields.

Where basket making or trading activities represent a second or third income to the household, an interesting process appears to be at work. Referred to earlier, it seems that some of these self-employed activities generating very low (but nevertheless real) incomes function very much like interest bearing savings accounts. The assets of these activities are essentially stores of wealth. When someone has some extra money from one of these other sources, rather than holding it as cash or putting it away in postal savings, many people choose (some feel compel[illegible]) to convert it to something such as maize, flour, salt, charcoal, or sticks for basket making. Gradually, these items or finished baskets can be sold

over time and the profits "eaten" or reinvested. In case of an emergency requiring funds for such things as funeral or medical expenses, these inventories can be easily liquidated. Investments in agriculture do not enjoy the ease of immediate liquidation and the risks from crop failure are much greater. Investments in trading inventories are relatively risk free (but for the very real danger of losses on credit sales).

Many times these business assets are earmarked for upcoming schoool fees or the long term goal of a new house. While it is usually the lower income generating businesses where this pattern of investment and liquidation can be observed, there are examples in the community of fairly substantial businesses with assets of several thousand shillings being liquidated for house construction, funeral, and medical expenses.

To conclude this section, Table 11 is presented showing the distribution of earned income sources among village households. It should be recalled that only fourteen of the 282 sources listed were directly related to the agricultural production of the households. Thus, in Table 11, we are referring essentially to non-farm incomes.

Table 11. Distribution of Earned Income Sources among Village Households.

Number of Incomes per Households	No. of Incomes	Number of Households	Per cent
No regularly exploited source of income	0	12	7.2%
One	77	77	46.4%
Two	88	44	26.5%
Three	57	19	11.4%
Four	40	10	6.0%
Five	20	4	2.4%
Total	282	166	100%

Only twelve of the 166 households had no regularly exploited source of income at the time of the survey. Some of these represent households in transition where members had recently held jobs and were looking for new ones. Others represent older households whose members have retired from regular income generating activities and who rely on remittances from their children.

Nearly ninety-three percent of all households were exploiting at least one of the 282 income sources. Exactly half of these households had multiple sources of earned income. It is also interesting that the lower income sources in such fields as market trading and basket making are rarely the sole source of income for village households. Rather, they are likely to be in addition to other sources which may be of high or low income. Despite the fact that there were seventeen men in the village making baskets when the survey was conducted, there was only one household in the village for which basketry was the sole source of income. Of the the twenty produce, staples, charcoal sellers in the village, in only one case was the income from this grouping the sole source for a household. Again, this may be related to the possible function of activities in this group serving as stores of wealth from other sources This, however, is not to discount other functions of which income, maintenance of social ties, and psychological fulfillment--doing something "important" with one's time-could be very strong factors motivating entry into the field.

Summary and the Direction of Future Research Plans

The purpose of this paper has been to present some data concerning the pattern of economic adaptations households are making in an area of severe land scarcity. Following the discussion of population and land resources in the study area, three basic alternative (but not necessarily mutually exclusive) forms of adaptation have been considered The first two forms involve increasing household land resources and making more efficient use of existing land resources. Both emphasize agricultural production as a primary means of support. While these forms have been very important for a limited number of village households, the third form, reliance on non--farm incomes, clearly predominates in the study area.

The data presented in this paper represent only the first stage of a continuing research project. As such, the paper has been largely descriptive rather than interpretive in content. The emphasis for the remaining portion of the research will be on the collection of data which will help to explain the pattern of economic adaptations found in the study area. The research will focus on decisions made within the household concerning the accumulation and expenditure of household resources.

The first point of investigation will be to determine how decision making responsibilities are divided among household members. For

example, who in the household will make the decision to plant hybrid maize or a cash crop? Who will decide the level of material and labor inputs to go into such endeavors? How does the residence of adult males (whether in the village, near the village, or far away from the village) affect decision making responsibilities within the village?

Another point for consideration is how village households actually perceive the range of economic alternatives available to them. As an outsider, a researcher may see the adoption of hybrid maize or a cash crop as viable economic alternatives to which households should allocate their resources. However, this view may not coincide with that of a decision maker in the household. There may be other factors which enter into the decision maker's perception of his options--factors which the researcher has failed to take into account.

Many beliefs and values prevalent in the community, though generally not associated with economic issues, may nevertheless have considerable influence in the allocative decisions of the household. These factors can place constraints on the allocation of resources to some alternatives while, at the same time, they may fucntion to channel resources toward other ends. The conduct of behaviour in a wide range of social and economic activities is guided by such beliefs and values. Within the community, there are notions of what consistitutes proper or improper behaviour. There are conventions as to how certain activities should be performed. Some forms of behavior are encouraged. Others are discouraged. There may be, for example, some business or employment activities in which women's participation would not be considered "proper". Certain kinds of agricultural pursuits (e.g.,some forms of cash cropping) might also exclude women for the same reason.

While compliance with village norms regarding the "proper" roles for women may be based on no more than moral authority, other norms of village behavior may have their authority strengthened by various sorts of rewards for compliance and sanctions for deviance. Attendance at funerals, for example, is regarded as a serious obligation on the part of most village households. Whether they want to or not, many village households feel compelled to participate in funeral services which, over the course of a year, amount to considerable expenditures of both labor (time) and capital. These expenditures are not without reward however in that they yield a number of social returns and offer to conscientious participants the security that they will receive the support of the village

when they require it. On the other hand, those who decline to participate will not hold the support of the community.

Several villagers have suggested that to excell in maize production might be self-defeating. The household having an obviously superior maize crop could be subjected to pressures to share its harvest with those who are less fortunate. Barring this, a good crop might serve as an invitation to those less fortunate to satisfy their hunger in surreptitious night harvests. It could even engender feelings of jealousy and envy culminating in acts of deliberate sabotage to the crop or household premises. In this example, we see coming into play the invocation of obligations to kinsmen and community (the feeling that those with food should be obliged to help those without) and the fear of potential community sanctions for behavior deviating from village norms. It does not matter whether theft and sabotage or the obligatory sharing of one's maize crop are real possibilities or not. If the decision maker thinks they are real, these factors are likely to receive serious consideration in decisions of resource allocation. In this situation, they might prompt the decision maker to choose investment in an activity in which his wealth is less obviously displayed or at least better protected.

These examples are intended to show how adherence to the standards of community behaviour (sometimes encouraged by appropriate rewards and sanctions) might eliminate seemingly viable economic choices from serious consideration. Even when potential economic alternatives do not conflict with such standards of behavior, obligations which extend from various beliefs and values held in the community represent additional alternatives competing for the limited resources of the household. These "additional" alternatives and community standards which restrict and direct decision making within the household are the subject matter of the remaining research. The researcher hopes to identify such social and cultural variables and to specify in qualitative terms the roles they may play in household decision making.

Data will be collected in a series of loosely structured interviews from a sample of village households. A tentative list of topics for discussion includes the following:

(1) the household's perception of its position in the community in economic and social terms

(2) goals, future plans of members of the household

(3) "appropriate" behaviour in the village--including the perception of obligations or responsibilities to the family, kinsmen, and the community

(4) who makes decisions in the household?

(5) leadership in the village

(6) wealth and poverty in the village

(7) illness, theft, and other misfortunes---are these seen as sanctions for inappropriate behaviour?

A provisional set of interview questions directing discussion on these topics is provided in Appendix 1 along with details of the sampling procedure.

For a number of reasons, both practical and theoretical, the kinds of data to be collected in these interviews are rarely considered in most broad based survey research concerned with household decision making. It has been suggested in this paper that in some instances, such data may be very important for a complete understanding of resource allocation at the household level. One of the goals of this research is to examine resource allocation in the sample village in the light of such data. As a village case study, it is hoped that this exercise will serve to demonstrate the ways in which such localized, culture specific variables function in the decisions of the household. It is also hoped that a more thorough understanding of how these variables function in this example may be generalized (i.e., a generalization of processes, not the variables) so as to aid other researchers in the preparation and interpretation of broad based survey research used in the planning and evaluation of development programs.

Appendix 1: Sampling Procedure and Elaboration of Topics for Discussion in Interviews.

Interviews are to be conducted from two sample groups. One group will be composed of the thirteen households for which detailed records of incomes and expenditures were obtained. These households were selected to represent the range of income levels and land holdings found in the village. They were not chosen randomly but rather on account of the researcher's judgment of their dependability and reliability as sources of information. The composition of the second group will be determined by a stratified random sample of the remaining village households. Three subgroups of eight households each will be selected based on the researcher's estimates from employment data of total household income (high, medium, low). Both husbands and wives will be interviewed and in some cases it will be appropriate to interview other members of the household as, for example, young men who have completed their educations and who are trying to establish their own economic bases.

The questions presented below are intended as starting points for discussion and are not exhaustive of any of the proposed topics.

(1) the household's perception of its position in the community in economic and social terms.

(a) How do you find life for yourself and your family in this village? (Whatever the responsible; e.g. relaxed, easy, a struggle, good, bad, hard, etc.; it should be elaborated in detailed discussion.)

(b) What problems are there in this community?
Do you also have these problems--other problems? Explain.
In what ways can a person help himself to progress?
What about for yourself?
What could the government do to help you?

(c) What do you think your sons will do to support their families?

Where/how will they get land?
What kind of future do you see for children here?
How can they succeed?

(d) How would you compare life now with the way it was in the past--for example, at the time you married or when you were growing up?

(e) Your best friends come from which households? Within the clan/outside the clan?

Are there any families with whom you don't get along? For what reasons?

(f) Can you name some of the families that are highly respected in the community? Why do people respect them? What about your own family?

(2) goals, future plans of members of the household

(a) Do you have anything in mind, any plan that you think will improve your life in the future? For example, business or employment plans, building a new house, land acquisition, etc.

(b) When you want to save money, how do you do it?--keep it at home, post office savings, buy something to sell later? Are you saving now?

(c) What would you like to do with your money? (Discuss the possibilities for various alternates; both long term, e.g., farm investment, land, business, house, furniture; and short term, e.g., farm investment, school fees, clothes, etc.)

(d) If a person has money, what should he do first?--buy land or build a good house, go into business, pay school fees?

(3) appropriate behaviour in the village--including the perception of obligations or responsibilities to the family, kinsmen, and community.

(a) What is a father's responsibility to his son(s) with regard to the provision of land, education, cattle/cash for marriage?

(b) What is the family's responsibility to help other relatives with school fees, funerals, house construction, food, etc.?

(c) What responsibilities do adult children have to their parents and siblings? How much should children help their parents when the parents are old? How do you help your parents? OR How do your children help you?

(d) What responsibilities do those people living outside have to the village? Should they be contributing to funerals, church, etc.?

(e) What is "appropriate behavior" in the village with regard to participation in village activities--especially church related and funerals?

Is there any great difference between those who attend church and those who don't ?.

(f) Discuss "appropriate behavior" with regard to men's and women's roles.

(4) Who makes decisions in the household?

(a) Discuss previous decisions, for example, the adoption of hybrid maize or cash crops, business ventures--whose idea was it? Who decided? Why?

(b) When you want someone to work for you, how (whom) do you choose?.

(5) leadership in the village

(a) Who are the leaders in this community-
What qualities do they have that make them leaders?
Are they good leaders? What things do they do/have they done?

(b) Does a village leader have to live in the village?
Did any leaders move to the settlement schemes?

(6) wealth and poverty in the village

(a) Many people have told me "This place is poor". Why are there poor people here?

(b) What do you think about rich people here? Why are they rich? Because they are clever, had good luck, come from rich families, are dishonest?

(c) Are rich people helping people in the village as much as they should? How should they be helping?

(d) Are there people who are jealous of rich people?

(7) illness, theft, and other misfortunes--are these seen as sanctions for inappropriate behavior?

(a) Has there been anyone in this family or do you know anyone who has been seriously ill? What kind of illness was it?
Do you know why or how that person became ill?
How were they treated (i.e. cured)? What costs?

(b) Has anything ever been stolen from your house/farm?
Do you know anyone who had something taken from him or had some property destroyed? Why did it happen? Were they careless? Did they have bad luck? Are they disliked?

(c) Have you ever had livestock or chickens die or do you know anyone who has? What caused it?

(d) Is it possible for one person to cause another to become ill, have bad luck or some other misfortune? (If yes) why would someone want to do such a thing? How can one protect himself from this?

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