

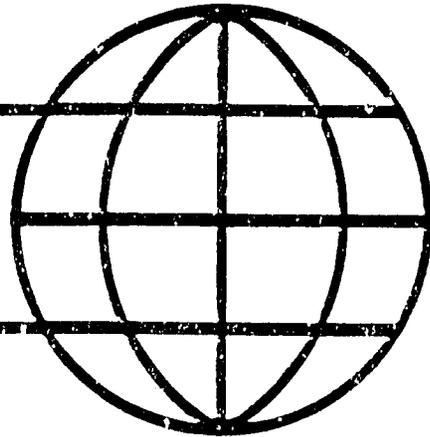
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**COOPERATIVE AGREEMENT ON HUMAN SETTLEMENTS
AND NATURAL RESOURCE SYSTEMS ANALYSIS**

THE AFRICAN FAMILY-HOUSEHOLD:
A BEHAVIORAL MODEL

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June 1985



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PREFACE

This study examines the African family-household as an important economic organization. The household is distinguished from the social unit of the family, within which it forms a localized subset, and from the purely geographic unit confined to a specific locus. Survey workers and census takers in Africa frequently encounter difficulties in the recognition of household groups, where kin relations in both composition and socioeconomic organization are more complex than in the more industrialized countries.

Because most African family-households are farm households, or are economically tied in with farm households, they are important producers as well as consumers, and this gives the household a large economic role in all African countries. Many households produce foodstuffs for themselves and for local markets, as well as producing commercial crops for national export markets. Households are also the chief management units for national livestock populations because commercial ranching is still limited. Given this important role the household has become the focus for development planners who must ultimately deal with the people who make the practical day-to-day decisions in farming and herding.

TABLE OF CONTENTS

PREFACE		iv
ACKNOWLEDGEMENTS		x
Chapter		
1. DEFINING THE AFRICAN FAMILY-HOUSEHOLD AS AN ECONOMIC ORGANIZATION: AFRICAN FAMILY- HOUSEHOLDS		1
Introduction		
The Definition of the Household and the Family-Household		
The African Family-Household		
The Basis of the Model		
2. THE AFRICAN FAMILY-HOUSEHOLD: HISTORICAL AND CONTEMPORARY FRAMEWORKS OF DECISION MAKING. .		71
Introduction		
Common Factors in the Process of Change		
Contemporary Frameworks of Decision Making		
3. THEORETICAL FOUNDATIONS FOR A RESEARCH MODEL		137
Introduction		
Systems Approach: Basic Concepts		
Behavioral Theories of Decision Making in Organizations		
Economic Theory and the Household		
Decision Making and the Nature of Rational Behavior		
Conclusion		

4.	THE AFRICAN FAMILY-HOUSEHOLD: A BEHAVIORAL MODEL	171
	Introduction	
	An Overview of the Model	
	Social Structure versus Economic Organization	
	Identifying the Sub-Groups and Decision Makers in the African Family-Household	
	Economic Behavior	
	Production and Consumption Decisions	
	The Household Production Function	
	The Relations Between the African Family-Household and the External Economy	
	A Synthesis of the Behavioral Model of the African Family-Household	
5.	MOSSI FAMILY-HOUSEHOLDS IN UPPER VOLTA: APPLYING THE MODEL	240
	Introduction	
	Social and Economic Organization	
	Identifying the Economic Sub-Groups and Decision Makers	
	Economic Behavior and Decision Making in Mossi Family-Households	
	Production and Consumption Decisions in Mossi Family-Households	
	The Interrelation of Production and Consumption Decisions in Mossi Family-Households	
	Conclusion	
6.	MANAGING PLANNED CHANGE: THE APPLICATION OF THE RESEARCH MODEL TO DEVELOPMENT PLANNING	314
Appendix		
1.	NOTES ON THE PREPARATION OF TABLES OF FAMILY-HOUSEHOLD DATA FOR AFRICA	333
2.	SOURCES OF INFORMATION ON MOSSI FAMILY-HOUSEHOLDS IN UPPER VOLTA, CHAPTER 5, AND ON THE EFFECTS OF COLONIAL POLICIES ON FAMILY-HOUSEHOLDS IN KENYA, CHAPTER 2	336

3.	CENSUS GUIDELINES AND INSTRUCTIONS FOR ENNUMERATORS: EXAMPLES FROM SUDAN, TANZANIA AND BOTSWANA	349
4.	HOUSEHOLD BUDGET STUDIES AND SURVEYS IN FOUR SELECTED AFRICAN COUNTRIES: BOTSWANA, KENYA, SUDAN AND UPPER VOLTA	353
5.	KINSHIP, ECONOMIC ROLES AND ACTIVITIES IN AFRICAN FAMILY-HOUSEHOLDS: TANZANIA, UPPER VOLTA AND KENYA	367

SELECTED BIBLIOGRAPHY

CHAPTER 1

DEFINING THE AFRICAN FAMILY-HOUSEHOLD AS AN ECONOMIC ORGANIZATION: AFRICAN FAMILY-HOUSEHOLDS

It is early morning in an African city. The bus, emitting strong fumes, and crowded with passengers, is pushing into the mix of traffic. Cars, trucks, mini-buses, vans, mopeds, bicycles, donkey carts, hand carts, and scurrying pedestrians jostle each other on the road to the center. In the dust along the roadside there are women swaying beneath the bundles of firewood loaded on their backs, secured with bands around the forehead and pulled around the waist. Children hang onto their skirts. A water seller hauls his tins of water on a small handmade barrow.

Samuel and his wife jump down from the bus and wave each other goodbye. Samuel is a driver at the Ministry of Agriculture and his wife is a sales assistant in a downtown store. It has taken them nearly two hours to get to work, more if you count the long walk to the bus stop from their small concrete block house outside the city limits.

Although the house is small, it also houses Samuel's mother and his two sisters, the husband and children of one of them, and his two youngest brothers who are still in school, as well as his own children. There is a small garden plot, a "shamba," where the mother and sisters grow bananas, onions, okra and other vegetables, as well as a few stands of maize. This helps to feed the family. They also keep two goats and some chickens for the milk and the eggs. When extra cash is needed, Samuel's sisters may take eggs and vegetables, and perhaps some home cooked food, up to the local market-place to sell.

Samuel walks this morning through the big gates into the Ministry building, past the watchman in his big army coat, past the women squatting by the gates with their bunches of bananas for sale. The coffee seller clinks his small cups together to advertise his presence, but Samuel must hurry. He is late. It is hard to get to work on time; the bus is unreliable and jobs are hard to come by. He refuses the two cigarettes pulled from a packet by the small

boy in a torn shirt and offered at a bargain price, but he drops some coins into the lap of the crippled newspaper man who moves about on his hands which are encased in slippers. Samuel picks up his paper. His day has begun.

In many ways Samuel is very fortunate because he has a good job and is respected by his whole family. He can afford to eat well, to buy different kinds of food, and to buy clothes. His wife's earnings give her a lot of independence, and she is able to enjoy some of the "high life" of the town and avoid the heavy work of cultivating and of collecting wood and water which is the daily lot of many women in Africa. Samuel is a Christian and he went to the Mission school so that he has only one wife. Many of his friends have more than one wife and sometimes they live with one part of the family in the city and spend time frequently with another part of the family in the farming area outside the city. This can be a very convenient way of living because the farming land will provide a lot of the food they need and cut down the expenses of keeping such a large family on a small wage.

Samuel has some farming land about one hundred miles away in his home region and he gets most of his maize from there which is the staple of his family's diet. He also sells some of this maize in ten-kilo bags when the harvest is good. One of his cousins manages the farm land for him, and there are numerous other kinfolk who work there. Samuel calls them "my relatives," and they are related to him by various biological ties. They live off the farm produce, and from time to time Samuel gives them gifts of cash or small presents of clothing or radios and watches. He goes there most weekends to collect produce for himself and to visit with his relatives and drink the locally brewed beer. He has a lot of prestige there, more than at the Ministry. Sometimes he brings back a bag of charcoal because it is much cheaper there than in the city. He needs the charcoal for the fires for cooking, and when the cool season comes, the fire will help the family to keep warm. They will sit by it outside the house.

Although few people are as secure in their employment as Samuel is, most Africans do what he does, that is make up an "income" from many different sources, relying neither on

wages nor on farming alone. Most also live with and get support from a large group of relatives who pool their resources and combine their strategies for getting a livelihood, whether they live in the city or in the rural areas.

Despite the enormous rush to the urban places that has taken place over the last two decades, the fact is that most people in Africa still live outside the cities and towns, cultivating and herding with a technology that has changed very little. What is of especial interest, however, and what is germane to this study, is that technology is one of the very few things that has not been profoundly altered; almost everything else has.

In some African countries as many as 70 to 80 per cent of the population may still live in the rural areas, but they do not live in a world of tradition and isolation (Table 1). Like the people in the city they get a living from a variety of sources. Many are involved in commercial farming, some producing important export crops such as coffee, tea, cotton, or oil seeds and groundnuts, even though they use mostly family labor and work with hand hoes and machetes. Others produce for local markets or sell crops periodically when they have a surplus or a special need for cash. They feed themselves from their crops and animals but they may purchase many food items, including grain staples. They have members who work locally on off-farm jobs as well as doing

TABLE 1

PERCENT LABOR FORCE IN AGRICULTURE
SELECTED AFRICAN COUNTRIES

REGION & COUNTRY		% LABOR FORCE IN AGRICULTURE	
		<u>1960</u>	<u>1978</u>
SAHEL	MALI	94	88
	MAURETANIA	91	85
	NIGER	95	91
	SENEGAL	84	77
	U. VOLTA	92	83
W. AFRICA	GHANA	64	54
	IVORY COAST	89	81
	NIGERIA	71	56
C. AFRICA	ANGOLA	69	60
	ZAIRE	83	76
E. AFRICA	ETHIOPIA	88	81
	KENYA	86	79
	SUDAN	86	79
	TANZANIA	89	83
	UGANDA	89	83
S. AFRICA	MALAWI	92	86
	MOZAMBIQUE	81	67
	ZAMBIA	79	68
	ZIMBABWE	69	60

SOURCE: World Bank, World Development Report, 1980.

paid farm work for others, and many get money sent back or brought back from members who are working away. This may sometimes be used to hire extra help for the farm work, especially at planting or at harvest times. Even the pastoral or semi-sedentary herders have changed the bases of their domestic economies in many ways, selling cattle, buying land, and making use of a mixture of resources to preserve much of their own preferred indigenous ways of living.

Many pastoral family-groups now combine herding with some other activities in what Horowitz describes as "the essential opportunism of pastoral life" (Horowitz, 1976). A family may have a village base and a cattle camp, or a town base and a cattle camp, and this kind of part-sedentarization can be both the refuge of the poor who have too few animals, or the strategy of the rich who enjoy the benefits of several sets of resources. Baxter (1975: 209) describes an arrangement of this latter type:

Wealthy among the Baggara (in the Sudan) and pastoral Fulani (in west Africa) set up town houses and use poor kin, indeed even unrelated men, to tend their stock for them. Among the Boran (in Kenya) in the early 1950's, the few men of Isiolo District who were wealthy enough to do so had, for all intents and purposes settled near to Garba Tula, though they did not cultivate, and used dependent kin to tend their other herds and flocks. One man at least, who was probably the wealthiest man in Isolo District even had milk brought to him daily from his wandering camel herds by an ex-slave.

Baxter states that there are no pastoralists in Africa today who do not participate in the monetary economy, through payment of taxes and the purchase of goods, while livestock sales are important to many family-household groups even though the total volume may be small from the national perspective.¹

The people in the rural areas of Africa are no more purely subsistence farmers than the people in the cities are purely wage-earners. Everywhere, African families have to depend upon the use of multiple resources to get a living.

The other important aspect of life in Africa today, from the point of view of this study, is that the large family-household group tends to persist, and most people find a living in the context of a network of kin and family relationships. This is true for cities, and towns and rural areas, though smaller nuclear family groups are now to be found in the major urban areas. The urban groups often have ties that bind them to other kinfolk, however,

¹Delgado, working in West Africa, also noted there that among the Fulani households near Tenkodgo, in Upper Volta,* almost three quarters of the value of production is production for sale, with livestock in the form of net sales of cattle being the most important item. The cattle are sold in August, he reported, to take advantage of the seasonally high prices and the herds are restocked in September. Delgado, C.L. Livestock versus Foodgrain Production in Southeast Upper Volta; Michigan, 1979(a).

* Upper Volta is now known as Burkina Faso.

and are not necessarily leading a separate economic existence. The ties may be to other urban relatives or they might be to kinsmen living outside the city, nearby in peri-urban farming regions, or farther away in rural "home" areas.

In the rural areas where community organization has been close because of the need for cooperation in the indigenous agricultural and herding systems, the family-household has become more and more independent as a result of the disruptions caused by the out-migration of young men and the increased commercialization of farming. This is not to suggest that community or village level cooperation doesn't exist, nor that the multi-family-household compound on which collective farming arrangements were often based has entirely disappeared. The family-household has come to be the most important recognizable entity for the study of micro-level production processes, consumption patterns, and labor allocation. Even where there are still common land or grazing rights, the household is a logical unit for such analysis; in other cases where there are no communal resources, it is the only such unit (Delgado, 1979a).

The processes of change in Africa, however, have not produced the uniformity of household type and organization that are claimed to be the outcome of the twin forces of industrialization and of urbanization, and said to

characterize the social arrangements of the more "developed" and industrialized countries (Handwerker, 1977, 1973; Caldwell and Okonjo, 1968; Ominde and Eijiogu, 1972; Caldwell, 1975a). Households in Africa are not necessarily, or even usually, simple nuclear family-households. They may not even be based upon a nuclear family, but may be formed around other important relationships, and they will generally include a great variety of kin. Kin relations remain important but not always in traditional ways. People use their kinship ties to acquire resources, to find jobs, to get help, and this leads to many different forms of domestic organization.² Even though a household is based on traditional relationships, it may well be organized in non-traditional ways since cooperation in living also takes many different forms in present-day Africa.

The family-household remains an important focus for the individual because in Africa it still carries out many functions that in the industrialized world are carried out by other institutions in society. Family welfare functions have to be more extensive where state welfare is minimal, while functions carried out by local authorities or by

²Skinner uses the term "manipulative" to describe the ways in which people in Ouagadougou, Upper Volta, use their kin ties to make the best of both modern and traditional institutions. Skinner, E; African Urban Life; The Transformation of Ouagadougou, Princeton, 1974: 440.

commercial institutions in the industrialized countries, such as the provision of water supplies, the sale of fuel, the production of food, and the production of clothing and other goods, often have to be incorporated into household activity in Africa. In fact, in many cases the household itself engages in commercial operations, taking on some of the functions of the firm elsewhere.

Present trends suggest that these factors will not change very quickly. Large families are still the rule and the birth rate remains among the highest in the world (Table 2). Demographic data indicate that it will not fall during the present decade.³ Progress in the development of regional and national food production and distribution system is slow, which means that much of this is likely to remain within the confines of the household for the immediately foreseeable future. The lack of jobs paying

³The source of this information is the United Nations World Population Trends and Policies 1977 Monitoring Report. See Table 2. Both crude birth rates and death rates are high. Since a decline in the death rates generally precedes a decline in the birth rate, a decline in population growth during the 1980's is extremely unlikely. The age structure of the population, with 40% of the population often under 15 years of age, means that the number of people in their reproductive years will also grow during the next decade. Current population growth rates are about 2.74 per cent per year and are expected to level off in 1990 at 3.0 per cent per year. Some countries already have growth rates of this order, notably Kenya, Tanzania, Rwanda, and Zambia.

TABLE 2

INDICATORS OF FAMILY-HOUSEHOLD SIZE IN AFRICA:
SELECTED COUNTRIES (1970's)

COUNTRY	FERTILITY	CRUDE BIRTHRATE (per '000)
ETHIOPIA	6.7	45.1
KENYA	7.6	47.7
SOMALIA	6.1	47.7
TANZANIA	6.7	47.1
MALAWI	6.1	49.1
CONGO	5.8	44.9
ZAIRE	5.9	45.5
GHANA	6.9	46.8
IVORY COAST	6.8	45.8
UPPER VOLTA	6.4	48.8
SUDAN	7.0	49.0
UGANDA	6.1	47.0
NIGERIA	6.7	49.0
MALI	6.7	50.0
ZAMBIA	6.9	51.0

SOURCES: World Bank Development Indicators, 1978
U.N.E.C.A. Demographic Handbook for Africa, 1975
R. Cassen Population Change, 1977 (mimeo)

wages that can keep a family in necessities adds to the need for cooperation at the household level. All this means that the present diverse patterns of domestic arrangements which are founded on this need can also be expected to continue for some time.

The central argument of this report is that in Africa the family-household is an important unit of economic organization and consequently of decision-making. In relation to indigenous social forms of organization it is now more effective than the larger groups. In relation to the individual it represents that "work-sharing consumption unit" that exists in all societies, albeit in different ways, because no society is composed of isolated individuals (Wallerstein, 1979), and in relation to its present situation, it is more than a simple domestic unit of reproduction and consumption because its functions go beyond these to include substantial amounts of production, including commercial production.

The second part of the argument is that despite the great variety of form that characterizes African family-households, this can be reduced to manageable proportions for investigation through the conceptual framework of the model presented in Chapter 4. This model takes a systems approach to the study of the household organization and a

behavioral approach to the study of its decision-making system and process. Its purpose is to provide an inductive model for research into resource use and livelihood strategies of African family-households.

Before this can be done the family-household has to be defined and its relationships with other family and social units examined.

The Definition of the Household
and the Family-Household

It is important at the outset to define what is meant by the term "household" and also what other interpretations are put upon it. "Household" is a word that is used differently in different contexts. Sometimes it refers to a physical unit or place for domestic activity, sometimes to a household group sharing this place, and it is often confused with the idea of family. The first element in these forms of usage is therefore geographic, the second is economic, and the third is biologic. Only the first two are strictly essential in defining the household.⁴

⁴Webster defines a household as "those who dwell under the same roof and compose a family or "a social unit comprised of those living together in the same dwelling" (Webster New Collegiate Dictionary, 1979). The Oxford Dictionary defines the household as the "occupants of a house or domestic establishment" (Concise Oxford Dictionary, 1976).

Distinction between Family and Household

The distinction between the family and the household is important in understanding the relations between social and economic factors and also in terms of the definition of system boundaries. The family is based on kinship and the members of it are defined on the basis of kinship relations (putative or real). They do not necessarily form a local living unit. The family is a social unit which is created out of the larger biological network which stretches away from the individual and goes beyond what is perceived by the individual as family. The limiting criteria that define the family in relation to this biological network are, therefore, culturally based and consequently the form of the family varies. In Africa there are many different forms. The simplest form is the matricentric unit of mother and children; and other forms of nuclear, polygamous, and complex extended families are among those which have social recognition.

The nature of the household is different from that of the family. It is a unit based on economic ties not biological ties and it is a local group. The local living unit is the essential basis for the household and a household group can exist which is independent of family relationships. A household may or may not constitute a family, and if it does constitute a family, this need not be a

nuclear family. The household may contain non-family members in addition to family members.

In relation to the family the household is a localized sub-set, and consequently it can be considered separately from the family. The household as a sub-set of the family is the family-household. This is a household in which the members are joined by biological, or putative biological, ties as well as by economic ties. It is thus contrasted with other types of household in which the members are not related by family ties.⁵

The family-household is recognized almost everywhere as the basic economic unit of society, the one in which the primary provision of food and shelter is made for the family-household group, and the one in which children are reared and cared for, and taught the simplest social rules. The functions of the family-household are as varied as its composition, and in African family-households these are likely to be more extensive than in the family-households of

⁵Because households usually are formed around a core of family relationships, and because in "western" society this is assumed to be the nuclear family built on conjugal relationships, the term family is often mistakenly equated with the term household and is assumed to mean a nuclear family-household. In dealing with the African situation this would be inaccurate and misleading. For example, Bohannon writes: "It is little short of astounding how many books...define the family as 'a man, a woman, and their children,' and then add the rider 'who live together:'" (Bohannon, P., Social Anthropology, New York, 1966). Also, a recent symposium on "The Economics of the Family" makes no attempt to distinguish family and household (Schultz, T.W. ed. Economics of the Family, Chicago, 1974).

"western" countries where functions such as education and health care are carried out by other institutions. The household can incorporate many different functions, and these functions can be carried out in many different ways. Domestic activities may range well beyond simple nurturing tasks and may amount to a broad range of livelihood activities. This is particularly so in the case of the African family-household.

Households as Geographic and Economic Units

While family-households are, almost everywhere, recognizable entities, exact definition is often difficult. This is because the geographic unit and the economic unit are not always the same, and because factors of mobility and change complicate the picture. Household activities are seldom confined to one place, and place is the focus of the family-household group rather than its fixed location. The focus may be one place or many. It may be a dwelling, a farm, a tent, or a territory over which a family-household group moves, as in the case of nomadic or pastoral people, for which the term "homestead" has been proposed (Saul and Woods, 1971). The place does not have to be owned by the group, nor does it always have to be the same place, for that group to be recognized as a household. Developmental cycles of change in the

family-household, as children grow up and move on to join other households or establish new ones, or as the death of a household head leads to reorganization of the group, make for locational changes as well. The importance of the geographic component is in place as an identifiable base for domestic activities, and it is the interests vested in that place or places that represent one of the criteria for inclusion in the household group.

Because the economic activities of a household group usually extend beyond the confines of a single physical unit or location, the economic definition of the family-household is almost always broader than the practical geographic definition used for surveys and census taking (Table 3). For such purposes it is frequently necessary and convenient to limit the definition, either on the grounds of expense or difficulty in capturing the economic unit, to the more obvious physical unit. In any case, it is the physical unit which provides the logical starting point for further analysis, and some surveys include pertinent questions about "absent members," "temporary residents," and other property or land holdings which are designed to lead into a better understanding of how the group functions.⁶

⁶Rald, writing of the situation in Bukoba in Tanzania, describes how the economic ties often involving links

TABLE 3

DIFFERENCES BETWEEN NUMBERS OF PLACE
SPECIFIC FAMILY ESTABLISHMENTS AND
ECONOMIC FAMILY HOUSEHOLDS IN
TANZANIA (Estimated)

1. Total number of Rural Family Households	2,368,000
2. Total number of Urban Family Households	<u>125,000</u>
3. Total Family Households	2,493,000
4. Estimate of number of Polygamous Families (20 per cent) (rural areas)	473,000
5. Estimate of Polygamous Families with Separate Establishments	400,000
6. Estimate of number of Urban Households Linked Economically to Rural Households (50 per cent)	62,500
7. Total number of Economic Family Households (3) - (5) - (6) i.e. There are <u>at least</u> 17 per cent fewer economic family households than place specific family households (more likely 25 per cent fewer)	2,030,500

between the rural and urban areas can stretch as far as from there to the capital city on the coast, although most are likely to be between local towns and country-side. He writes:

...whether you are a craftsman, a clerk, a teacher or a Principal Secretary in Dar es Salaam, you maintain your 'kibanja' unit at home as part of your private economy (Rald, J & K, Rural Organization in Bukoba District Tanzania. Uppsala, 1975.

This 'kibanja' unit or farm plot is maintained by other family members, or else by hired labor, in this case from Burundi or Rwanda over the border, who substitute for the owner's own labor. Rald calls these owners "part-time farmers," and in the Zaria region studied by Norman in Nigeria a similar reference is made to the fact that not

Criteria for Recognition of
the Economic Unit

The economic definition of the family-household rests upon the notion of interdependence. In all societies there are observable domestic economies made up of shared tasks, responsibilities, and resources, in which participation involves a situation of interdependence, though these are not shared in the same way or to the same extent in all family-households. This close interdependence at the level of basic family support and daily living is expressed in the term "commensality" as used by anthropologists. Literally this means "sharing a table," and the much quoted definition of the household as "those eating from a common pot," cited by Chayanov (1971 translation), expresses the same idea. Since there are many family-household groups that do not take meals together in this literal sense, these expressions can be considered as metaphors for the reality of close domestic economic ties.⁷

all the farmers are full time farmers, or even wish to be full time farmers, and that this is a fact which is often overlooked by the development planners who fail to account for it in their programs (Rald, 1975; Norman, D.W. "Farming Systems and Problems of Improving them" in Kowal, J.M. and Kassam, A.H., Oxford, 1978).

⁷It is clear that the physical sharing of the meal itself is not essential to the definition. See Barth F., *Economic Spheres in Darfur* in R. Firth. London, 1970, for an example where meals are not shared in rural African family-households.

These general principles of participation, interdependence, and organization, including shared interests in a domestic base or bases, are what constitute the essential criteria for an economic definition of the household or family-household.⁸ The degree of such participation and interdependence shows much variation, and it can probably be said that the greater the division of tasks and the greater the sharing of resources, the greater tends to be the complexity of the economic organization. In many African family-households this organization is very complex. Participation and interdependence often extend to a large number of functions and to the sharing of many different kinds of resources, so that the group is often a micro-economic unit of production and consumption, though not anymore a subsistence unit largely cut off from the market.

Drawing the Boundaries of the Economic Unit

While it is not too difficult to identify the existence of a household group, drawing the boundaries around the economic unit is more complicated and becomes in the end a practical matter in terms of the purposes of the inquirer.

⁸Turnham uses these general principles in his definition of the household as a "work sharing, income sharing group" for his "practical definition of the family" (Turnham, D. The Employment Problem in Less Developed Countries, Paris, 1970).

The family-household is not defined as an autonomous or self-sufficient unit. It has many links with other family and kin groups, links which can involve resource use and work sharing--even coresidence in large compounds or village settlements in the case of African family-households.

The family-household can be thought of as being at the center of a familial and social system from which there are receding levels of responsibility and density of contact and transactions. In the case of African family-households this larger familial and social network continues to have an importance in the functioning of the family-household which, while different in many ways from that which was customary in the past, tends to be more effective than is usually found in the case of "western" family-households.

The Family-Household in Relation to the Larger Organizational Units

Different organizational levels and associated decision making levels were characteristic of most African indigenous societies, and these were also associated in some cases with physical or spatial units of organization. Beyond the family-household, which could be a nuclear family unit or a polygamous family unit, or could be formed around other family relationships, there was often a larger group

of kin members who formed a coresidence unit or a closely settled unit. This has often been referred to as a compound, but this word is also used to mean a single household compound, so it needs to be explained in explicit terms.⁹ Compounds were characteristic of farming groups and were also found in the indigenous towns. The comparable unit for nomadic and other herding groups was the tent cluster, and in Sudanese nomadic groups, for instance, a tent cluster would consist of some 10-15 family-households (Asad, 1970; Haaland, 1972; Horowitz, 1976).

Both the compound and the tent cluster represent levels at which some cooperation in work activities on a regular basis was to be expected. In the case of settled farming communities, this was the organizational level at which the task force for working the common fields was recruited, and, in the case of the herders, it is the level at which grazing movements are planned. Collective farming operations of this kind appear to be on the decline.¹⁰

⁹See for example Delgado (1979a: 33):
"whereas household and compound are for most purposes the same in Oueguedo, there may be several households in any given compound in Loanga, where a compound can be very large."

¹⁰"The tendency of the search for cash income is to substitute the household for the community." Bernstein, H., Capital and Peasantry in the Epoch of Imperialism. Dar es Salaam, 1976: 17.

A third organizational level, in some places represented by a village¹¹ or in the case of herders by a group of tent clusters (known in the Sudan as a "farig"), was the level at which resources were often held in common, or rights to usage were acknowledged. Land rights and grazing territories were organized around this unit which was usually a descent group, though it might include affines.¹² (Affines are relationships created by marriage as distinct from those created by descent.) Inheritance of such rights is still very important for many family-households.

¹¹There is no simple relationship between villages and social groups. Sometimes there may be several villages belonging to one group. Sometimes a village may contain different groups as well as people who have no hereditary ties to the place at all. Even the idea of a village or nucleated settlement of this kind is inappropriate for some areas, especially where it can conjure up pictures of an ideal type of rural settlement more suited to European nostalgia.

¹²Relationships between lineage groups and territory are less complete and exact today. People depend less completely on local resources and often use land which is not theirs by right or inheritance but which has been bought or rented. In Kenya, for example, strong ties and feelings still persist towards traditional home areas but the government's reorganization of land tenure, the growth of urban areas, and the extension of cash cropping into new regions, have disrupted ownership and management patterns.

Beyond this level, there was the tribe, and in some instances a kingdom or other political entity less involved in daily matters of economic life. Not all these levels of familial and social order existed in all places, nor among all peoples, and the kinds of organization and participation also varied in relation to them. A general pattern, however, seems to have been present for many of the indigenous groups, and some parts of this order remain effective today. These linkages tie the economic sub-set of the family-household into the larger family and social systems.

The position of the family-household as an economic unit in Africa is not that of a nucleus encased in a familial or cultural cell, but that of a node in a system of socioeconomic networks which dynamically connect it to other such units. These networks extend beyond kinship and include ties to other cultural groups, local and rural communities, urban centers, and institutions belonging to larger regional, national and global economies.

The Definition

The boundaries of the economic unit of the family-household can be registered by establishing the nature and strength of those links in accordance with research needs. This working definition of the family-household contrasts

with the idea of the household as a static feature. Households are not static either in their composition or location. They are not based on fixed structures nor on fixed sets of rights and obligations; neither are they based on fixed tasks and rigid organization, nor on fixed and permanent locations. Both internal and external changes can affect the family-household, altering the relations of the group to each other and of the group to the place to which it relates.¹³

An effective definition of the economic unit of the family-household might begin with place, since this is the identifiable geographic locus for the group, but it would have to include the socioeconomic networks reaching into and out from the locale in order to capture the effective organization. This is especially important in Africa because many households are based on farming units that can seldom be maintained without inputs to them from off-farm work, while it is also true that many urban households

¹³Attempts by some anthropologists to set up a typology of household types based on residence norms, expressed by such terms as patrilocal, matrilocal, virilocal, uxori-local, neolocal, etc. have been found to be unsatisfactory precisely because of this variation in the bases for household formation, the fact that they are not so easily equated with cultural norms, the fact that households change their composition and their location, and the fact that the terms themselves are ambiguous and open to different interpretations. Goodenough, W. "Residence Rules" S.W. Journal of Anthropology, 12: (1): 22-37, 1956 and Fischer, J.L. "The Classification of Residence in Censuses." American Anthropologist; 60: 508-517, 1958.

have significant economic ties to rural areas.¹⁴ Sometimes the multiple use of resources leads to the integration of a number of different places into one economic unit, while the existence of plural wives in a family-household can also mean separation of certain activities and resources. Although, for census purposes, polygamous wives may be counted as separate units if they live at a distance from the husband as head of household in a different enumeration area, it is likely that in most cases they should be included in the economic unit even though the linkages are very varied.¹⁵

Appendix 3 shows three sample sets of guidelines for census takers in African countries to identify households. The length of the instructions gives one clue to the complexity of the situation.

¹⁴The significance of off-farm income in relation to farming operations is noted by Cleave, J.H. Decision Making on the African Farm. World Bank, 1977; Norman, 1978, 1980; Ruthenberg, H. Farming Systems in the Tropics. Oxford, 1976; Rald, 1975; and many others. (See also footnote 6).

¹⁵The economic relationships between husband and polygamous wives vary a great deal. Wives do not always receive full support, in fact in many cases polygamy is of economic advantage to the man, whose wives contribute to the family income by their farming, their trading, and the bearing of children to carry on farming and to bring in more cash income. See Boserup, E. Woman's Role in Economic Development, New York: 1970: 37-47.

Census Guidelines

According to the dictionary definitions of the term "household," it can refer to either the place or dwelling occupied by a household group or to the group itself. In most cases the household economic unit is not exactly coincident with the household as a dwelling place. Therefore, guidelines are necessary to establish the identity of the economic unit of the household. It is not enough to identify the group of people constituting the economic household simply by reference to those present in a particular physical unit at the time of the census. There are also instances where a physical unit may contain more than one household group.

Where information is required on the economic household unit, questions have to be designed which define membership of the group. The most important criteria are:

- (a) economic interests in the physical unit of property or land
- (b) economic participation in "income" generation (to include all forms of income)
- (c) economic participation in consumption and use of resources

People absent from the physical unit may therefore be included if membership is defined by these criteria.

A further question would have to relate to the possible existence of other domestic bases and physical property belonging to the group. The multiple use of resources by most African households means that this is a common situation. A number of physical units occupied by different members of the group may be related therefore by close ties in one production-consumption unit. A comparison may be made with the individual firm in which a number of separate plants are part of the one economic unit.

The African Family-Household

The purpose of this section is to give the reader some idea of the detailed forms of the African family-household, from which the inductive model in Chapter 4 is derived, and to indicate the nature of household economic organization in Africa. It is not meant to be comprehensive but illustrative.

The Form and Composition of African Family-Households

There is a great variety in the form and composition of African family-households and the core relationships, or founding relationship, need not always be that of a husband and wife. Households can also be based on the relationship

of father and sons, as is the case for the Tiv people of Nigeria where this relationship is traditionally valued over the conjugal one. They can also be based on relationships of siblings, which can take many different forms. Mitchell noted close bonds between brother and sisters in the formation of domestic groups in Malawi among the Yao people, while among the Maninka people in Mali it is reportedly a man and his younger brother who form the basic domestic relationship. Such joint fraternal family-households can also be part of the cycle of change when an eldest son inherits his father's household.¹⁶ Households are also based upon polygamous relationships, which, of course, brings in many more kin-related members (Table 4).

¹⁶Sometimes today joint fraternal households are formed in order to combine resources or to make the most of different sets of resources which neither of the brothers' families could manage alone. Murdock gives an example of this type of arrangement in the Butana region of the Sudan Republic where a new agricultural scheme is underway involving the pastoral Shukriya people resettled from the flooded areas of the Aswan High Dam:

A single tenancy of 15 feddans (cf. acres) is insufficient to support a household on its own. Combined with other activities, particularly with traditional stock raising, a tenancy can yield enough supplementary income to be attractive. But to exploit both the tenancy and to raise livestock the family must have the proper mix of labor resources. During the cultivating season for instance, animals must be kept away from the fields. A family that can provide both a herdsman and a cultivator can exploit the new opportunity without abandoning the security of the old. Two adult brothers might combine resources in this manner, with one farming and the other herding their joint estate of land and animals (Murdock, M.S., The Impact of Agricultural Development on a Pastoral Society, Binghamton, 1979).

TABLE 4

INDICATORS OF FAMILY-HOUSEHOLD SIZE IN AFRICA:
POLYGAMY SELECTED COUNTRIES

COUNTRY	No. wives per married man (average)	Polygamous unions as % of total
SENEGAL	1.3	23 ²
SIERRA LEONE	2.3	51 ²
IVORY COAST	1.3	27 ²
NIGERIA	2.1	63 ²
UGANDA	1.7	45 ²
TANZANIA (Rungwe)	1.2	26 ³
UPPER VOLTA	2.0	38 ⁴
AFRICA	1.3	20-25 ¹

- SOURCES: 1. United Nations Economic Commission for Africa, 1963
2. Boserup, 1970
3. Egero and Henin, 1973
4. Director of Social Services, Ouagadougou, Upper Volta, 1962

Few households seem to have been traditionally based on the maternal relationship, though in the case of polygamous marriages the degree of cooperation between the partners can be tenuous enough to suggest that the maternal relationship is the more important one; mothers and their children sometimes forming virtually distinct sub-units within the household group. In the freer social and economic atmosphere of the cities and towns, there are women heading their own independent households, while in the poorer rural regions also there are households where women have been left to manage their families and households almost alone while the ablest menfolk are working away (Table 5).

Domestic groups are not always built upon a specific relationship, nor is social conformity always a factor now that social and economic systems are more open, but it is important to understand in terms of the model that African family-households can differ substantially from each other in terms of form and composition, and also that they can be very unlike the popular conception of the "western" family-household of mother, father, and the children.

In Africa the obligations for caring are vested in a greater variety of kin ties, and, in addition to the founder members, a household may be augmented by other relatives

TABLE 5

FAMILY-HOUSEHOLDS HEADED BY WOMEN:
SELECTED AFRICAN COUNTRIES

COUNTRY	REGION	% HOUSEHOLDS WOMEN HEADS	SOURCE
KENYA	Machakos	11.2	Marginal lands Survey Vol. 6 p. 73 ¹ Survey Vol. 6 p. 11
	Kitui	11.2	
	Baringo	6.4	
TANZANIA	Bugufi	6.	Boesen et al. 1977 p. 61 Tanner, 1960 Boserup, 1970 p. 59 ²
	Coast region	39	
SIERRA LEONE		10	Boserup, 1970 p. 62
GHANA		37	Boserup, 1970 p. 62
BOTSWANA		40 ³	Gov. of Botswana 1974-75 Survey (1977)
SUDAN	Gezira	10	Sudanow, March, 1981 p. 43

1. But I.L.O. study in 1972 showed up to one third of all rural male heads of household away from farming unit, and women heading family-household in their absence. Over 400,000 family-households in all Kenya headed by women.
2. The 39 percent refers to womens' ownership of plots in sample of three villages
3. Many of these are de facto heads of household while the senior male is temporarily absent in paid work.

towards whom there are responsibilities. Siblings of either husband or wives or both may join a household. Children of siblings or younger siblings are often to be found in urban households where they have come to be near to a school or to search for a job. Mothers are often to be found in the households of sons, or in the household of a husband's brother, when widowed or divorced. In most cases some such arrangement would have been obligatory under traditional social rules but today there is more freedom, though the tradition often persists.

Many family-households contain non-family members. In the past when a man's prestige perhaps depended more than today on the size of his household, people whose only real claim was need might be admitted to the group. Where land was available, extra labor meant extra cultivation or extra help with the herds, so it was possible to extend traditional hospitality and also get some reward. Today it is difficult in many ways to dispense such charity because household economies depend on other sources of income, though prestige still attaches to the large family-household and the male head of the family. Non-family members are more likely to be hired workers now, though wages may be low and include subsistence in the way of food and shelter.

Formerly, some family-households would have included slaves, and Murdock describes how Moslem wives among the Shukriya group in the Sudan were absolved from all kinds of domestic and agricultural work through the use of slave labor. Today their position remains little changed but paid help replaces the slave labor (Murdock, 1979).

Arrangements which are particular to certain cultural groups account for the presence in some family-households of non-family members. In the Sokoto region of Nigeria, for instance, there is a tradition of "fostering" children among the Fulani-Hausa so that some children of the household do not belong to the family. It is, in fact, customary to send the first-born out of the household to be brought up by a paternal grandmother or aunt (Trevor, 1975). Another traditional arrangement is that of Moslem religious teachers who sometimes bring pupils into the family-household. The wives of these pupils are expected to help with domestic work. While the individuals themselves move on eventually, in most cases there is reason to account for them as part of the household since others will take their place and retain the household type. Sometimes the pupils marry into the household and change their status (Skinner, 1974).

It is often said that traditional kinship ties are being weakened in Africa and there is a danger that this may lead people to think kinship is no longer important.

Counter to the pressures that lead to a weakening of some indigenous networks of responsibility, however, are others which serve to strengthen family-household cooperation, such as the need for a strategy of defense against poverty and insecurity. Where farming yields poor returns, where wages are low and jobs scarce, many kinds of activities go into making a living; and where people have to depend upon such a variety of strategies they tend also to depend on each other. Family help becomes a necessity.

While kin relationships remain important, though, this is not in the sense that they follow normative cultural patterns. People remember, use, accommodate, and in some cases manipulate their kinship ties, but the kinship roles, the terms used to describe them, and the significance of both the roles and the terminology have all been changing in response to the many developmental forces affecting Africa today.¹⁷

¹⁷Kinship roles are not determined in any simple or universal way by biological relationships. If they were then "kinship would be the same in all societies" (Bohannon, 1966: 55). Even the kinship term "mother" can have a sociological meaning as distinct from a biological meaning. Thus among the Fulani-Hausa people of Nigeria Trevor notes that there is a separate term of address for the woman who mothers a child, "mama," as opposed to the woman who gives birth to the child, "maihaifiya" (Trevor, 1975). Children are not all reared by their biological mothers. In Botswana, for instance, where children are recognized as an economic asset, the first child, especially if a girl, is often given to the grandmother to help her in her old age, and other children may be given to childless relatives

The African family household can still be fairly large and complex even though today it is less likely to be based on traditional work organization and may bring together people of varying occupations. Birth rates in most African countries are among the highest in the world, and completed family size in many countries is six or seven children, so that large families and large households tend to be the rule even without considering the effects of additional kin members on household size (Tables 6 and 7). There is still some belief that children are an economic asset, if not in terms of agricultural work needs, then in terms of securing good jobs and supporting parents in old age or ill health. There is also still prestige attached to the large family.

The nature of this complex family-household is best described as "multi-kin," though the term extended family

(Merriweather, 1969). The economic content of kinship roles also varies. Bohannon explains the behavioral nature of kinship roles and terms in this way:

"The most important fact about a kinship system is that it is a set of role tags which make it possible for a person to know what to expect from his kinsmen and what they expect from him. It is only secondarily true that in all societies some of these categories include persons who are related by biophysical links."

(Bohannon, 1966: 70)

TABLE 6

INDICATORS OF FAMILY-HOUSEHOLD SIZE IN AFRICA
SAMPLE SURVEYS AND CENSUS DATA
SELECTED COUNTRIES

COUNTRY	SIZE OF HOUSEHOLD		SOURCE
	Sample Survey	Census	
RWANDA		5	Nwator, J.C. 1977
NIGERIA (Zaria)		8-9	Kowal and Kassam, 1978
KENYA (Gakarara) ¹		5	O'Keefe and Wisner, 1976
(Nairobi) ²		4-5	I.L.O. 1972
(Baringo)		8-9	Marginal Lands Study, 1979
UPPER VOLTA (Bisa group)		8-9	Delgado, 1979(a)
(Fulani group)		9	Delgado, 1979(b)
(Mossi group)		8	
TANZANIA		7+ 31%	
		3-6 53%	
		1-2 16%	

1. A poor region with many absent workers not included in totals.
2. It is known that most of the urban family-households have economic ties to other family members in the rural areas.

TABLE 7

NUMBERS OF FAMILY-HOUSEHOLDS IN SELECTED AFRICAN COUNTRIES AND TOTAL POPULATION

COUNTRY	No. F-Households	Population (millions)	Source
TANZANIA	3,250,000	17.05	Census Bureau 1978
KENYA	2,340,000	10.9	I.L.O. 1972
SUDAN			
rural	1,700,000	10.0	I.L.O.
urban	130,700	0.767	1976
total	1,830,700	10.767	
UPPER VOLTA	720,000	5.7	Delgado 1979(a)
AFRICA (rural)	45,000,000	358	World Bank 1980

is often loosely applied to it. The extended family has a more precise meaning--that of the grandfamily of three or more generations formed by the overlapping of the natal and conjugal families of either man or woman or both. It is often used, however, to denote almost any large family group which is larger than the nuclear family.

There is also some confusion surrounding the use of the term "extended family" because in Africa it may

be used to describe a multi-household compound as well as an individual compound or single large family-household. The smaller unit can often justifiably be called an extended family, both in the exact meaning of the term as well as in its looser application to any large family-household group. It can be important to get this distinction clear because when it is said that the extended family is breaking up, this statement usually refers to the multi-household compound unit, and if this is not appreciated the situation can easily be misread.¹⁸

Economic Organization

Economic relationships in indigenous family-households were based on the kinds of cooperation that were needed to get a livelihood from farming and herding at basically a subsistence level, although trading took place among indigenous groups and a few were totally dependent on their own productivity (Meillassoux, 1971; Bohannon and Dalton, 1965).¹⁹ The present basis

¹⁸A compound may contain a single family-household or a number of functional domestic units. Thus in Zaria, in Nigeria, two types of "family unit" are described by Norman, the "gandu" which is the multi-household compound, and the "iyalli" which is the simpler unit. The latter is said to be composed of "a man, his wives, and their dependents" (Norman, 1978).

¹⁹See for a useful discussion about the misunder-

for cooperation in African family-households is the need for land, the need for cash, and the need for mutual support in countries with very high unemployment rates and, often, an increasing pressure on cultivable land.

Indigenous Organizational Systems

The most important resources, in the indigenous domestic economies, were land and animals or access to fishing waters. Commonly held rights to land or grazing formed the basis for cooperation within the household and also in some cases among households. Work organization was generally based on a sexual and generational division of labor and responsibility. Allocation of both resources and duties was based on custom, and cooperation was maintained by social discipline, though disputes were not unknown. The individual usually had some room for personal decisions but collective matters, at least in theory, came first.

The detailed nature of these systems was very diverse but this was in effect the general pattern. In most cases the head of household was the senior male, a

standings of the nature of African indigenous domestic economies in Hopkins, A. An Economic History of West Africa, 1973.

position defined by reference to age and generation, and his was the major responsibility for feeding the members of the household and maintaining the cohesion of the group. His authority was limited by the power of the elders in many cases who often had an important role in decisions affecting the household. They were the repositories of culture, and they controlled resources and had a large say in matters such as weddings, funerals, and other social and economic observances. They presided over house building and other functions decreed by custom.

The position of the head of household was often managerial rather than commanding because of the devolution of tasks and responsibilities among the other adult members of the group. Both men and women could be considered as production managers in respect to their own work assignments, while both could have total charge of their own personal plots of land, separate from collective fields. Animals too, were often held on both collective and personal account.

Both men and women could get help from subordinate family members and from children whose jobs were not usually sex specific until a certain age. Younger brothers could be required to help their elders while daughters-in-law or younger sisters might be expected to assist an older woman. Some households might include concubines who would be

expected to help in domestic work, and in polygamous households younger wives were often expected to cooperate with the senior wife. The situation varied from group to group. In some polygamous family-households there was very little cooperation among co-wives and the household might be formed of a set of matricentric units, with each wife having her own children to support.²⁰ In many regions slave labor was also available to some households in the past.

The ways in which responsibilities were divided varied a good deal, and tasks done by men at one time of the year might be done by women at another. In general, however, it was the woman who was usually responsible for getting water and wood, for work connected with food preparation and cooking, and for the daily chores of washing and cleaning. Women were usually responsible for child care, though older men might also help in some cases by minding small children and watching cooking fires. In most cases women also had small plots of land to cultivate food crops and were important contributors to farming households. Men generally

²⁰In Machakos, Kenya, Heyer reports that "each wife has complete responsibility for the cultivation and produce of her own plot of land and she makes all her production decisions alone. The head of the homestead does the same for his plots. There is little cooperation..."

Heyer, 1966: 41-42.

were engaged in the heavier clearing work on the collective fields and were mainly responsible for livestock. They also hunted game and small animals for food. Tasks such as the slaughtering of animals for meat usually fell to the men in the group.

Although these serve as examples of the kinds of divisions in task assignments, it should be remembered that the details varied. Tables 8 and 9 show how tasks were divided in the family-households of the Mossi and Bisa in West Africa. In the past there would be little variation among the members of any particular cultural group, since the divisions were made according to custom. The same was true of the ways in which resources were shared and used. Relationships based on kinship underlay all these economic relationships.

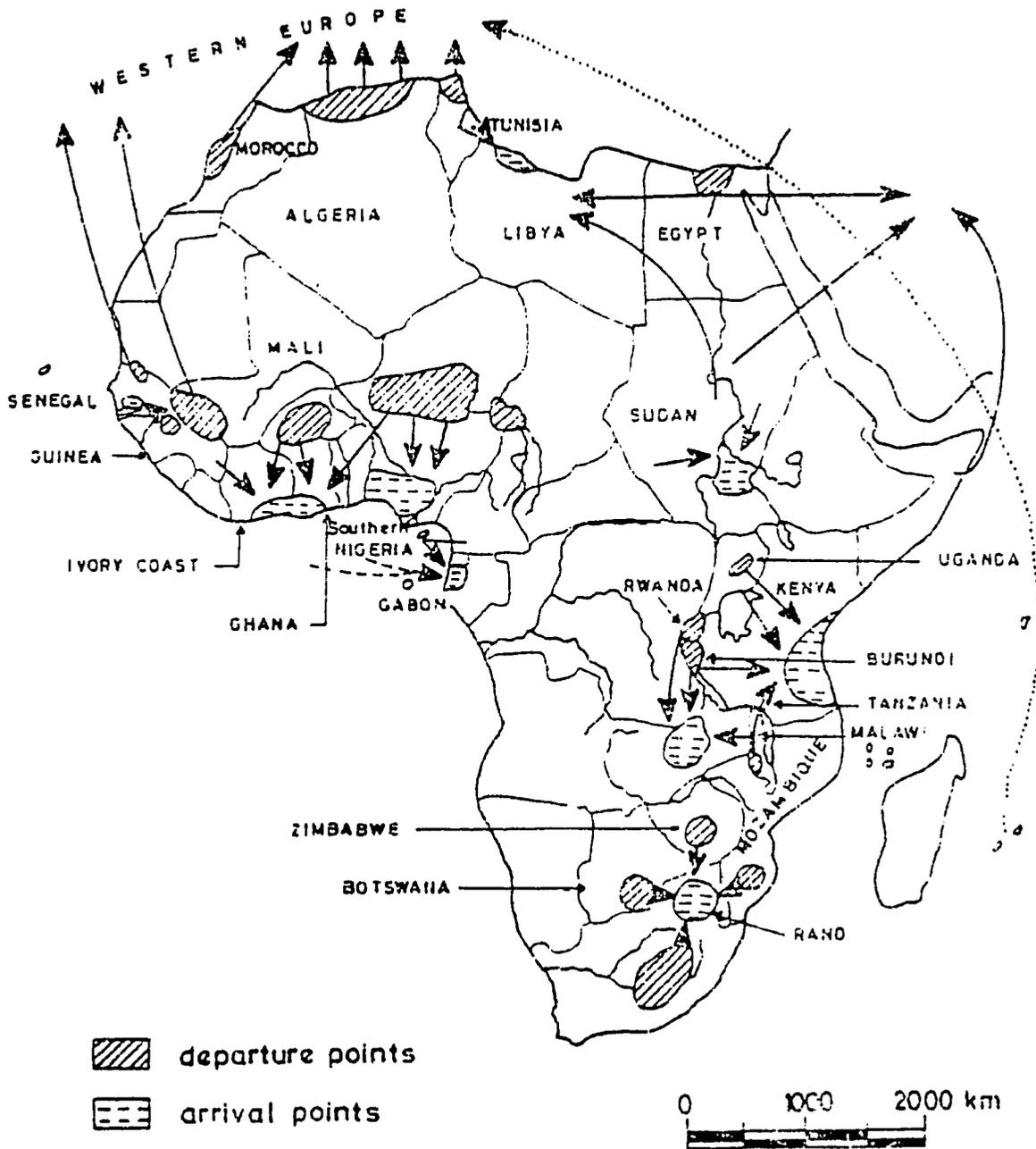
Present Organizational Systems

Many of the organizational patterns relating to the indigenous socioeconomic systems of Africa persist today, but they are altered in important ways by the effects of monetization, labor migration, and the effects of commercialization on farming and herding. New resources enter the household; work organization is changed; and new consumption patterns emerge. Tables 10 and 11 provide data on off-farm income and activities; Table 12 provides data on

FIGURE 1

AFRICA

MAIN INTER-STATE FLOWS OF TRANSIENT WORKERS



J.M.FAYEMI, enda, 1977

TABLE 9

DIVISION OF LABOR IN AFRICAN FAMILY HOUSEHOLDS:
MCOSSI, UPPER VOLTA

Always Predominantly Male	Always Predominantly Female	Always Div- ided Between the Two	Changes Cate- gory Over Seasons	Performed One Season Only
Prepare fields	Fetch water	Travel between fields	Weed	Metal work
Water crops	Fetch wood	Harvest crops	Transport of harvest	Sow seeds
Construct fences	Meal prepar- ation	Attend meet- ings	Poultry work	
Agricultural work invita- tion	"Other" domestic work	Go visiting	Spin cotton	
Small stock work	Commerce		Spread fertil- izer	
Large stock work			Gather wild crops	
Weave straw				
Construction				
Pottery				
Non-agricul- tural work invitation				

SOURCE: Delgado, 1969: 96.

TABLE 8

DIVISION OF LABOR IN AFRICAN FAMILY HOUSEHOLDS
SOME EXAMPLES FROM UPPER VOLTA

<u>Bisa</u>				
<u>Always Predominantly Male</u>	<u>Always Predominantly Female</u>	<u>Always Divided Between the Two</u>	<u>Changes Category Over Seasons</u>	<u>Performed One Season Only</u>
Water crops	Fetch water	Harvest	Construct	Metal work
Guard Fields	Meal prepar- ation	crops	fences	Sow seeds
Agricultural Work Invita- tion		Go visiting	"Other" domestic work	Spread fertilizer
Small stock work		Transport harvest	Spin cotton	Weed
Large stock work			Prepare fields	Travel between fields
Construction			Fetch wood	Gathering wild crops
Non-agricul- tural work invitation			Attend meeting	Pottery
Poultry work			Commerce	

SOURCE: Delgado 1978 p. 96

TABLE 10
THE IMPORTANCE OF OFF FARM INCOME:
SOME EXAMPLES

COUNTRY	AREA	NET CASH INCOME		SOURCE
		ON FARM	OFF	
KENYA	MACHAKOS-KITUI	782 Ksh	2982 Ksh ⁴	MARGINAL LANDS SURVEY VOL. 3
KENYA	WHOLE RURAL AREA	69% total income	31% ¹ total income	CBS SURVEY 1976
NIGERIA	ZARIA	224 (total)	40 (total)	NORMAN 1976 p. 336
TANZANIA	WEST LAKE	118 Tsh ³	82 Tsh	BOESEN et al. ² 1976 p. 60
UPPER VOLTA	MOSSI	30,900 CFA	16,305 CFA	DELGADO 1979 p. 220.

¹

22% is attributed to off farm employment and 9% to off farm activities.

² 50% of all households report significant off farm resource extractive, manufacturing, or trade and resource off farm work.

³ 8 Ksh (Kenyan Shillings) = \$1

⁴ 8 Tsh (Tanzanian Shillings) = \$1

TABLE 11
TYPE OF OFF FARM ACTIVITIES AND PERSONS ENGAGED
AN EXAMPLE FROM KENYA

Activity reported	Head	Wife	Son	Daughter
Working in town	310	11	285	35
Teaching	52	6	35	5
Selling Food	29	62	1	0
Handicrafts	64	54	14	10
Shop Keeping	56	9	12	2
Trading	41	14	10	2
Other Sales Activities	97	154	22	11
Sales of land	4	0	2	1
Work on another farm	71	96	66	57
All other	163	14	33	4

SOURCE: Team's survey Marginal Lands Study US AID 1979.

TABLE 12
FOOD PURCHASES IN DOMESTIC FARMING ECONOMIES:
SELECTED COUNTRIES

COUNTRY	REGION	TYPE OF ECONOMY	% FOOD PURCHASED	% CASH SPENT ON FOOD
KENYA	Baringo-Kerio	Animals/crops	30	
	Machakos-Kitui	Animals/crops		50
	Rural in general	Mixed		50
UPPER VOLTA	Zorgho (Mossi)	Animals/crops	25	60
	Tenkodogo (Fulani)	Mostly animals	50	
	Ouagadougou	Vegetables/grain (Gardening)	30-40	
TANZANIA	Bukoba	Coffee/banana	10-20	30-90
SUDAN	Khashm el Girba	Irrigated farms	70	

SOURCES: Kenya: Marginal Lands Survey, Vol. 6: Integrated Rural Survey, 1974-75
Upper Volta: Delgado, 1979; ORSTOM, 1975; Skinner, 1974
Tanzania: Rald, 1976
Sudan: Hoyle, 1977

the significance of food purchases. Land may be used for cash crops as well as subsistence food production, affecting its value and the claims to land by household members. Cash earnings accrue to members in ways that affect their relationships, altering the traditionally more dependent status of women and young men.²¹ Absence from the household of men who would normally be responsible for much of the heavier farm work alters the sexual divisions of labor, leaving women with greater responsibilities. Women often become de facto heads of household in this case. Where cash crops are grown, labor may be hired to augment family labor or to replace it. Even where traditional organization may appear to be still in place, the reality beneath the appearance may be very different (Bradley et al., 1977) (See Appendix 5).

Economic changes alter the economic roles and the responsibilities for decision making within the family-household, and where the family now depends less upon its

²¹In the cities and towns, women are often able to earn cash by selling beer and trading. Some earn considerable sums of money in this way, hiring trucks to haul produce from rural areas to sell in urban markets and taking goods from the city to sell on return trips; and they can be fiercely independent.

own local resources, the basis for economic cooperation is changed.²²

Some households still retain a coherent strategy for getting a living, with a well worked out deployment of land and cash resources, while in others the degree of coherence is much less.²³ In many family-households there is said to be a dialectic between the young and the old, with disputes common over land and labor organization. Where the elders want to retain the labor of the young men for farm work there may be disputes over the issue of their leaving for work in other places, rather than encouragement for them to do so. Horowitz reports that some of the opposition to

²²The relationships among co-wives is an instance of change in African family-households. In the urban areas there is less need for cooperation, though Skinner reports a case where a woman in a well paid job is assisted in the household by a wife who is of a lower standard of education, and he suggests that there is a tendency for the working wives to leave the other wives to do the cooking and housework and not to take the five day turn at meal preparation that is customary. There is no suggestion that relations in rural households are any more harmonious, only different. Most women say they would prefer a monogamous marriage (Skinner, 1974, : 141).

²³From Mauritania it is reported that: "Many young men go to France on the initiative of their families; parents or elder brothers. In such cases, they are duty-bound to return to them a large part of their wages." (Bradley, Raynaut and Torrealba, 1977: 57). Kohler also describes how some Mossi households in Upper Volta pool their resources of cash to send young men to the Ivory Coast to earn the family's tax money (Kohler, 1972).

the introduction of the donkey drawn hoe in west Africa might be because, since it is labor saving, it can replace the labor of the younger men and so allow them to feel less shame at leaving (Brokensha, 1977).

Disputes also arise over the uses made of the money remitted by migrants. While accepting their obligations to family members, they may also be anxious to build up cash reserves of their own. In Mauretania, Bradley and his co-authors say that the young migrant workers sometimes employ a "duntegne" or "man of confidence" to make sure that the money they send back is used in accordance with their wishes (Bradley et al., 1977). They may want this money used to buy into the traditional resources of land or cattle or both, and so to improve their standing in the local community.

Other problems arise over access to land where the elders use their power and authority to retain land for themselves for the growing of lucrative cash crops, depriving the younger family members of land resources. The young men are then forced to seek paid work or find land elsewhere before they can marry, or otherwise wait longer to inherit from their own lineage (Kohler, 1972; Marchal, 1977).

Conflict can also arise when family members neglect their obligation to work on the collective fields in order to put more time into their individual plots for cash

cropping (Faye, Gallali and Billaz, 1977).

While the African family-household is, therefore, held together by a variety of social and economic ties, it does not necessarily function as a whole. The result of the availability of work outside the family farming unit has been to give the young a greater degree of independence which allows them to challenge the authority of the traditional hierarchy in which the elders have occupied a dominant place (Bradley et al., 1977).

Despite all the changes and conflicts outlined above, kin relationships and the social roles based on them underlie much of the economic organization of the African family-household, especially where the domestic economy remains primarily based on farming and herding. In some cases it is the traditional social and economic relationships which explain the use of resources or the patterns of work organization and consumption, while in others it is the power and authority derived from wealth and education. Sometimes traditional power and authority is used in non-customary ways.

Social and economic positions within the family-household group can be altered by economic changes from outside. These changes are, in some cases, recognized explicitly by a change in kinship terms so that younger successful members may be granted "seniority" in this way (Marris,

1962; Skinner, 1974).

The head of household often continues to have control over the user rights to land, and, in some places, can still exert his authority to organize the farm work, especially in relation to the growing of staple grains and the care of livestock. Because he is often perceived to be the chief authority, whether this is true or not, he may be the only member of a household group who can get credit or receive allocations of seeds or fertilizers from the agricultural extension services (Barnett, 1979). Likewise, however, he may be held responsible for the tax payments of the whole family group. Norman suggests that to some extent the degree of coherence in the management of the family-household can be measured by the way in which tax payments are made (Norman, 1978).

While it is position in the family-household which, therefore, often explains the access to and use of resources, this positioning is not always in reference to the indigenous traditional forms of organization. Social and economic factors are interrelated in such a way that a change in one can lead to a change in the other, which, in turn, can presage further changes. Social and economic relationships are in a sense transactive.

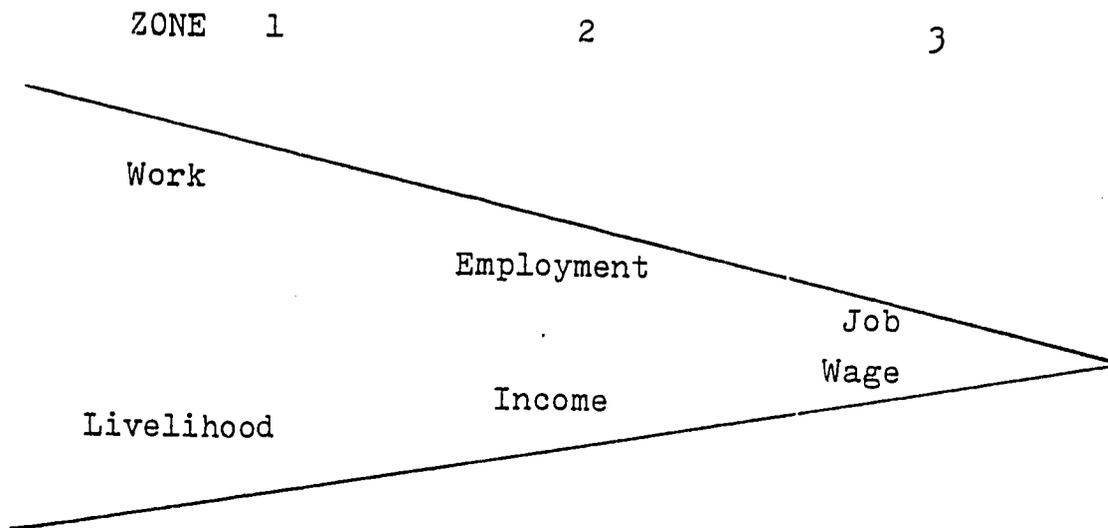
Domestic and Livelihood Functions

Domestic and livelihood functions were one and the same in most of the indigenous family-households, but today livelihood is provided for by production activities both inside the household and outside it. In the same way consumption is no longer necessarily confined mainly to consumption of goods produced in the household.

The term "livelihood" is used in this dissertation to cover the whole spectrum of production activities that support the family-household members. It, therefore, includes those activities that take place within the household as well as those that take place outside it, in the labor market and the market for goods. African family-households use all kinds of resources to get a living and very few can depend on wage labor for all or even most of their needs. Consequently, the term "livelihood" more appropriately describes their means of support than does the term "income," which, although literally meaning "all that comes in" to the household, is most generally understood to mean cash income (Wallerstein, 1979).

"Western" categories and definitions of economic terms, still commonly in use by the International Labor Organization (ILO), though increasingly questioned by some writers, are inappropriate to the African situation without qualifi-

cation. The general problem is summed up in the following diagram, in which activities and rewards are set out in three zones which become increasingly specific.



The ILO commonly applies the definitions and categories appropriate to zones 2 and 3 to the whole spectrum of activities and rewards. Thus "employment" is defined as work which is cash remunerated, putting the majority of African workers into a spurious category of "unemployed." Following on from this one can appreciate that a similar distortion applies to the use of such terms as "labor force," "participation rate," and, of course, "income."

The way in which "income has been defined to mean cash income from so-called "modern sector" employment, is derived from the unreal dual-economy model. This designated modern sector can involve less than 10 percent of the population in any African country and does not always involve

them exclusively (ILO, 1973). The work force in African countries cannot usefully be divided in this way because of the dynamics of the situation where cash and subsistence activities are overlapping and interdependent, as evidenced in part-time employment combined with part-time farming, multiple job holding, and seasonal changes in occupation (Bartsch and Richter, 1971).

Livelihood is also used in preference to "domestic functions" to describe household functions that extend beyond the domestic functions usually associated with households in the more industrialized countries; in the same way that it denotes the extension of production activity beyond job holding. In a more restricted context, domestic functions are usually thought of as mainly consumption and reproduction, with production activity represented by such things as food preparation, sewing and mending, and making small things for the home. In fact, as explained earlier, domestic functions can extend to take up almost any functions that are not provided for elsewhere. In Africa they extend to include the growing of food crops, the rearing of livestock, the fetching of water and wood for fuel, as well as the care and teaching and other welfare functions provided to members. They also extend in some cases to the growing of export crops, and in many other cases to the production of goods or crops for sale. African family-households are

not merely consumers and suppliers of labor through reproduction. They are also important producers. Livelihood is concerned with production and so its use is appropriate for describing the functions of the African family-household.

Livelihood also appropriately denotes the close interdependence of in-household and non-household production activities. This is basic to the economic theory of the household as posited by Schultz and others to explain allocation of resources and economic behavior (Schultz, 1974). The theory holds true for all households, but in some ways it is more easily demonstrated in African households where the interdependence between the two sets of resources (in-household and non-household) can be more obvious.

The functions of any family-household (or household) are those of production and consumption. Investment of time and money is made into these two functions, and the decisions taken in this respect are interrelated by choices that are made between them and also by choices made in respect of different kinds of production and consumption activities. The choices, as noted, extend to those made between in-household and non-household types of these functions. Reproduction is also a form of production and is considered by some as an economic activity, so that decisions to have children are put on a par with other decisions regarding production.

Much of the work being done in the field of family economics is focused on fertility in relation to the allocation of time in-household versus non-household activities. If fertility can be determined by choice, then it falls within the scope of economic behavior, and, of course, in theoretical terms the reproduction function is part of the research model. This is discussed further in Chapter 3 which deals with the theoretical foundations of the model.

The importance of economic conditions in affecting reproduction is acknowledged here, particularly the importance of the conditions under which the production of food and other necessities takes place; and, since the exact nature of the effects are not known, it is an important subject for research. The costs of reproduction are not dealt with specifically in this report, which is more particularly focused on the questions related to livelihood and resource use.

Production activities supporting household members in Africa and so forming the basis for their livelihood are immensely varied, as complex as those of any business enterprise in many cases. An ILO report on employment in Africa contains this description:

"...the great majority of people find a livelihood, in a family unit, through a host of miscellaneous and petty activities--partly from a landholding of perhaps two or three acres, partly from a little

market or street trading, partly from a day here or there of casual or seasonal employment, in ways so elusive that they slip through the crude net of statistics unnoticed." Hunter, 1973: 113

The interplay of kin relationships combined with this multiple use of resources can give rise to some very complex patterns of productivity. For example the Swedish authors Kongstad and Monsted describe households in Kenya where "the husband manages his own farm producing cash crops along with a large shop and other business ventures, while his wife or wives work in their small shambas together with their children and in addition work on the farm as unpaid family labor controlling the work of laborers employed in capitalist wage-labor relations by the husband." (Kongstad, and Monsted, 1980) (Table 13). Similarly Skinner describes domestic economies in Upper Volta which also involve both complex economic ties between kinfolk as well as a mix of resources, often combining rural and urban resources, as in this example where salaried people living in the capital city of Ouagadougou send to their rural homes for wives or other close kin to come and farm for them:

"(They) view their peri-urban or rural farms as a source of basic staples for their families and only secondarily as a source of income from the sale of produce. The result is that the economics of these farms are difficult to unravel. Not only is there a lack of bookkeeping, but kinship factors play an important role in the production and distribution of food. For example, relatives or friends settled on these farms are not given a fixed salary. Instead,

TABLE 13

THE IMPORTANCE OF HIRED LABOR IN AFRICAN AGRICULTURE:
SOME EXAMPLES

COUNTRY	LOCATION	% LABOR HIRED	#	SOURCE
SUDAN	GEZIRA	80	500,000	ILO SUDAN 1976 p. 94
TANZANIA ¹	BUKOBA SUKUMLAND	10-17	60% of all farms	MASCARENHAS 1976
NIGERIA	ZARIA	18		KOWAL & KASSAM 1978 p. 325
KENYA	all rural areas	20	450,000- 500,000	ILO KENYA 1972 p. 38
MAURITANIA	GUIDIMAKA	20-25		BRADLEY et. al. 1977 p. 117
SENEGAL	2 villages	5		BOSERUP 1970 p. 21
NIGERIA	SEVERAL SAMPLE VILLAGES	42		BOSERUP 1970 p. 21
UGANDA	SEVERAL SAMPLE VILLAGES	10		BOSERUP 1970 p. 21

1. Over one-third of the country's agricultural systems involve substantial hired labor. (Conyers, 1972)

they are given sums of money periodically, provided with money for taxes, and given such gifts as bicycles and clothing. These relatives may also consume as much of the food produced as they need and cultivate their own crops which presumably they do sell for cash." (Skinner, 1974: 51-52)

The combination of rural and urban resources is common to many family-households. Sometimes a farm base is combined with a well paid city job, but for the poor, where farming is low in productivity, wages from other work are essential. The lack of employment, poor wage levels, and absence of security for sickness and unemployment, also mean that some reliance has to be placed on farming for most people in Africa to maintain themselves. A surprising amount of cultivation still takes place within the city limits in many large African cities, bearing witness to this need.²⁴

²⁴In a table showing the occupational groups in the city of Ouagadougou, Upper Volta, based on the Census of 1962, cultivators account for 4,655 persons out of a total sample of 12,774. They have mostly obtained land in the traditional way, either from relatives or from local chiefs, that is without payment other than the gifts which establish the right to usufruct but not ownership. They cultivate in the same way as the people in the rural areas, growing the same kinds of crops and using the same hand tools. Some now grow vegetables for the urban market. "They now grow vegetables wherever land and water are available, especially near the ravines. Gardens are found along the railroad tracks leading into town: along the Ouahigouya and Bobo-Dioulasso roads; on the banks of the reservoir north of the town; on vacant plots behind the Palais de Justice and in front of the Post Office, and on the side-walks near the Auto Gare... Those plots near the railroads and reservoirs are cultivated by gardeners who

In the majority of cases where the family-household is still based on farming, cash remittances from absent workers are an important part of the family's livelihood. The value and significance of such remittances varies a good deal. In some cases they amount to very little, so that the household is deprived of labor with little compensation, while in other cases they can be vital to the household economy even where living standards remain very low. This is true for many households in Botswana where migrants to South Africa bolster the household incomes of the poor, and also in Upper Volta where migrants to the coastal states of west Africa supplement the incomes of households in their home regions. It is a feature of the domestic economies in many other countries (Table 14).

Not all African farming households are poor, however. In some areas the family-household may have a large element of commercial activity. This can involve the growing of important cash crops for export, such as coffee in Kenya

have no formal title to the land... It is probably only a matter of time before...the municipality (will) forbid all cultivation in Ouagadougou" (Skinner, 1974, pp. 54-60).

Ouagadougou is the capital city of Upper Volta and an important regional center for West Africa, and this is a situation that is found in many large African cities. Nairobi has similar plots of cultivation along its roads leading out from the city center.

TABLE 14

RELATIVE SIGNIFICANCE OF REMITTANCES
FROM ABROAD TO AFRICAN COUNTRIES

COUNTRY	RELATIVE IMPORTANCE OF REMITTANCES			
	IMPORTANT TO NAT'L ECONOMY	IMPORTANT TO MANY FAMILY HOUSEHOLDS	HELPFUL TO NAT'L ECONOMY	IMPORTANT TO SOME FAMILY HOUSEHOLDS
U. VOLTA ¹	X	X		
MAURETANIA ²	X	X		
BOTSWANA ³	X	X		
ALGERIA ⁴		X	X	
SENEGAL ⁵	X			X
KENYA ⁶				X
SOMALIA ⁷	X	X		
SUDAN ⁸	X			X
TANZANIA ⁹				X
MALAWI ¹⁰	X			
RWANDA ¹⁰	X			
BURUNDI ¹⁰	X			
LESOTHO ¹⁰	X			

NOTES ON REMITTANCES (TABLE 14)

1. Remittances for 1978 were estimated to contribute 8% of total GDP (IBRD 1979).

2. In the early 1970's monetary transfers to Mauretania totalled 1.45 billion CFA - higher than average annual external loans and grants to the country (Bradley 1977, p. 54-55).

TABLE 14-Continued

3. Migration in Botswana is particularly important to poor families.
4. While many Algerians work in Europe especially France and Italy, remittances are now more helpful at the family level than the increasing oil and gas exports. Jobs are still short in the Algerian economy.
5. Migration to France is important to the Senegalese economy but does not affect so many people as in Upper Volta.
6. Kenya overseas remittances are quite small and only locally significant.
7. More than 100,000 Somali workers, are employed in the Gulf States. Their salaries total more than all wage employment inside Somalia. Remittances are a vital foreign exchange component and support many families.
8. Many Sudanese professional, technical and unskilled workers are employed abroad in Nigeria, in Saudi Arabia, Egypt and many other countries. While many are involved, impact is mainly on northern Sudanese. The foreign exchange component is very important to Sudan.
9. Remittances are only significant for a small number of families in Tanzania.
10. In all these countries, remittances are the single largest foreign exchange (World Bank 1980).

and Tanzania, cotton in the Sudan Republic, or peanuts in Senegal and the Gambia, for example (Table 15). In these cases the household may hire labor to help in the farming operations but the basic labor is still usually that of the family-household and their kin, using traditional hand hoes and very little modern equipment.

By comparison with crop cultivation the commercial element in herding households is still small scale (Table 16) (Pratt and Gwynne, 1977; Stryker, 1974).

It will be seen from these examples that the productive activities of the African family-household cover a whole range from subsistence food growing, commercial farming, livestock raising and selling, to job holding and self-employment in business. Hunting, collecting wild products such as gum arabic or honey, and fishing can also be added to the list of productive occupations, while processing of foodstuffs, the preparation of charcoal, and other similar processing and manufacturing activities also take place as household activities. Production activities supporting the African family-household cannot usefully be assigned to two simple categories of which one is cash earning and the other is subsistence, because cash earning is not a single class of activity that takes place outside the household. Since cash can also be earned from work

TABLE 15

RELATIVE SIGNIFICANCE OF EXPORT-COMMERCIAL CROPS
IN SELECTED AFRICAN COUNTRIES: THREE INDICATORS

COUNTRY	% GDP	% HOUSE- HOLDS INVOLVED	% AGRICUL. PRODUCTION BY VOLUME OR VALUE	CHIEF CROPS
KENYA	8	12	32 (value)	COFFEE TEA PYRETHRUM
SUDAN	15-20	8	11 (volume)	COTTON
IVORY COAST	12	50	40 (volume)	COCOA COFFEE PALM OIL
SENEGAL	18	30	50 (volume)	GROUNDNUTS COTTON

SOURCES: ILO MISSION REPORT, SUDAN, 1976
ILO MISSION REPORT, KENYA, 1972
DEVELOPMENT PLAN, GOVERNMENT OF KENYA, 1979-83
ECONOMIC SURVEY OF THE SUDAN, 1978-79
SURVEYS OF AFRICAN ECONOMIES, IBRD VOL. 3 1970

NOTE: Where precise figures were not available the figures were computed from significant data. For instance, the figure for Kenyan households involved in commercial cash cropping for export were derived from the income distribution data correlated with known facts on incomes of farm households. Likewise the figures for the Sudan were available from official data for the Gezira and an extra percentage was added on.

TABLE 16

LIVESTOCK AS A SOURCE OF CASH IN DOMESTIC
AFRICAN ECONOMIES: SOME INDICATIVE DATA

COUNTRY/ REGION	DATA	IMPLICATIONS
KENYA	500,000 cattle equivalents sold annually for Ksh. 227 million	Annual income average: Ksh. 1,000 (US\$ 125) per family per year for whole rangeland population of 1.2 million people
WEST AFRICA	1.1 million off- take per year	Annual income average: US\$ 80 for 1 million households
SOMALIA	National stock level of 10 million (+) livestock units	Annual income average: US\$ 120-180 per capita for livestock owning family-households

SOURCES: Heyer, 1976, p. 255 for data on Kenya
IBRD, 1976 Annex 2, p. 9-10 for data on West
Africa
USAID Somalia Profile, 1980, p. 74 for data
on Somalia

NOTE: Livestock units are standard animal units based on
weight. About 7 sheep or goats are equivalent to 1 cow.

inside the household, neither can there usefully be any simple equation of subsistence production activity with in-household activity.

The productive activities of the family-household are, therefore, only properly understood in terms of their interdependence, which is how they are depicted in the research model. There is competition and a need to make trade-off decisions about the investments to be made into land, labor, and the use of cash resources as inputs to the various forms of productive activities in which the household members engage.

Trade-offs in decision-making are not confined to those which have to be made among the various productive activities, but also concern choices between production and consumption (See Table 12, p. 50). The production of things for sale, especially the production of cash crops, may compete with the production of things for use, especially food crops. Likewise the decision to purchase food or other consumer goods will depend on the availability of home supplies as well as on the availability of cash that may come either from the sale of cash crops or from the sale of household members' labor.

All the functions of the family-household, both production and consumption, (including also reproduction), are interrelated. There are no neat divisions. The family-

household has one stock of human resources, natural resources, land and animal resources, and cash resources. They are used in production and consumption activities according to the decisions made by members of the group, singly or collectively. Trade-offs among the functions help to explain how they are used. Trade-offs are also known to depend on the socioeconomic relationships existing among the members of the family-household.

The Basis of the Model

As an economic organization the African family-household behaves as an open system, a localized sub-set of the family and kin group, with which it has varying degrees of attachment and changing relations. The systems perspective is the most effective one for dealing with entities which exhibit such linkages and which contain within them linked sub-systems.

In Chapter 4 this perspective is used to develop a practical research model for understanding the economic behavior and decision-making of the African family-household. The African family-household, recognized as the primary identifiable functioning domestic unit and defined on the basis of participation and interdependence, is considered as an economic organization.

It is proposed that the household's decision-making can be studied in the context of behavioral theory, by which is meant that there can be expected to exist within the organization a decision-making pattern that is related to the nature of the organization itself. In this case it is related to the fact that the African family-household has a dual nature as a production and consumption unit, and a dual nature as a social as well as an economic unit. The existence of a decision-making pattern implies the existence of more than one goal and a process by which multiple goals are resolved. It implies an interrelationship among members. Trade-offs among the various household functions and competing goals of the members are part of the dynamic.

CHAPTER 2

THE AFRICAN FAMILY-HOUSEHOLD: HISTORICAL AND CONTEMPORARY FRAMEWORKS OF DECISION MAKING

This chapter deals with both the past and present frameworks of African family-household decision making and attempts to draw out the significant connections between them, that is the historical basis for the present context in which the members of African family-households work and live.

It was emphasized in the last chapter that African family-households are neither "traditional" nor relics of "traditional" institutions, and that they are new socio economic entities which have evolved in relation to the processes of change, in particular in relation to those changes that came about through European colonization and progressive integration into the world's economy that has followed from it.¹

¹See Wallerstein, Martin and Dickinson, 1979 for amplification of this point.

The members of an African family-household today, not only live in different kinds of communities from those of pre-colonial Africa, but they make their decisions about resource use and livelihood now within the framework of a national economy, whether or not they are wholly a part of that economy. In many cases they have very little part in it, but are tied in with an international one through the activities of workers living abroad and through the operations of the markets for export crops. This is a very different framework for their lives and livelihood than that which operated in the days of pre-colonial and early colonial rule.

In colonial times the decision making in respect of certain types of activities and certain kinds of resource use was often wrested from families and households by force and by the dictates of government or administration.

The record of this regimentation of African peoples is remarkably complete in the files and documents of colonial administrations. For instance, in Kenya the Crown Lands Ordinance of 1902 classified land as "scheduled," that which was exclusively alienated for European settlement, and "reserve" or native land, meant entirely for African habitation. Restriction of Africans to the Reserves was made law in 1926. The same kinds of restrictions were put upon the pastoral peoples in the far north

of Kenya where fixed tribal grazing areas were designated and grazing boundaries such as the Somali-Galla line established by a Crown Ordinance of 1934 were drawn up in defiance of existing indigenous arrangements for resource use (van Zwanenberg and King, 1975), (Figure 1).

In what is now Zimbabwe, a Land Commission set up by the British Government in 1894 recommended the apportionment of land between Europeans and Africans. The British South Africa Company, acting under a Royal Charter, allocated to the recently conquered Ndebele tribe two large tracts of land, the Gwaai and Shangani Reserves, which covered over 2 million acres but was practically waterless. It had never been inhabited by the Ndebele and they refused to settle there. The Ndebele homeland on the high veld was declared a European area. See Weinrich, 1975, and Palmer, 1968.

In other places and times, decision making was curtailed by laws of marketing restrictions, or restrictions on the movements of people and animals.

There was avowed resistance by Europeans to the "native incursion" into cash crop markets, and when European settlers in Kenya began to develop herding and dairying enterprises, and began to import cattle, severe restrictions were set up to keep these animals isolated from African herds. The pastoral reserves were put under quarantine

regulations which made it illegal for Africans to take animals across a Reserve boundary for cash sales (Obudho and Taylor, 1979).

African families had to live in certain places, were forbidden to grow or to market certain crops, and were recruited for, even forced into, certain kinds of employment. There is evidence from many parts of Africa concerning the forced recruitment of Africans to work for Europeans. Arrighi, 1970 and Palmer and Parsons, 1977 give an excellent summary and review of the situation in Central and Southern Africa. Amin, 1974 provides information on West Africa. The following quotation from a study of Uganda (van Zwanenberg and King, 1975: .. 67) illustrates the manipulative measures that were taken against the Africans:

The peasant cash crop producers (in the south), the large sugar plantations and the government all required a large pool of unskilled labor and if their demands were to be met without in any way disrupting cash crop production in the south, labor had to be drawn from other areas. By 1925 it had become the policy of the administration to discourage, or at least not to support, the development of cash cropping in the outlying areas, so that if the people living there were in need of cash they would be forced to offer themselves as wage laborers.

In many places, particularly in West Africa there was forced labor. Forced labor continued in Mozambique until the 1950's.

Africans lived and worked within the framework of an

economy which was neither managed by them nor for them. It differed in this major respect from the pre-colonial domestic situation, but also because the frontiers of this colonial economy were much wider than those of the African domestic economies that pre-dated it.

Decision making at any level has to be understood and studied in relation to the contextual framework in which it takes place or it becomes meaningless. That is the rationale for this chapter, to explain the changing frameworks in which members of African family-households have managed their resources and made their economic decisions.

Common Factors in the Process of Change

There is tendency to think of change in Africa as being an effect simply of modernization and the growth of national economies, which leaves a feeling that before the start of this process there existed stable, unchanging traditional societies. This, of course, is not so. The history of African societies reveals a picture of considerable change in the fortunes and consequently in the economies of different peoples at different periods.

Some of these changes in fortune were brought about by alterations in the environment, such as the recurring droughts of the drier parts of the Sahel region or the altered lake levels and river bed changes of the equatorial

regions.² Some changes were catastrophic such as the major epidemics affecting either people or their animals, such as the rinderpest epidemic which killed off many Kikuyu cattle in the last part of the nineteenth century and profoundly affected the economy of that society in Kenya.³ Some changes came about by competition between different groups of people over land or animals.⁴ Nevertheless, these kinds of changes were not of a common kind; they did not reach into all parts of the continent and affect all people. They were localized changes, no matter how profound or important.

The changes which have been universally significant, forcing new ways of living, new choices in resource use, and even new goals in the behavior of African families, have been those associated with the institution of colonialism and the repercussions of it which persist at the present time. These changes were of a different order of

²Droughts are a recorded feature of the Sahelian regions since records began. The recent 1972-74 drought was neither the longest nor the most severe. Fluctuations in lake levels in such diverse locations as Lake Victoria and Lake Chad have been the cause of major adjustments by local people.

³The same epidemic fundamentally changed the economy of a wide area of East Africa, ranging from Ethiopia to Tanzania (Kjekshus, 1977, Baker, 1977, Mesfin in press).

⁴The Afars and Isas are one example of long standing conflict over territory, which still continues in the Horn of Africa. Another instance is the Somali conflict of northern Kenya.

magnitude, affecting every society, and causing widespread transformation of both customary ways of living and of the natural environments in which people found their livelihoods.

Hardly any sphere of traditional life remained untouched. Change was not something external which had its impact on the indigenous societies but something which was also wrought on the whole internal organization of these societies. As a result of these changes there has been a total alteration of the relations between individual families and the kinship and ethnic groups to which they belong, an equally great change in the relations between group and group, and also, a widely felt dislocation of the natural resource use systems on which the livelihoods of the various indigenous communities were based. Collective kinds of resource management and the social cohesion associated with these were weakened.

For some people these changes were brutal and immediate as they were dispossessed of lands or taken away by force to work for the European colonists, but in general they were brought about more slowly and were cumulative, building upon each other, as railways and roads were constructed, as trade developed with the Europeans, and as cash crops were introduced into indigenous farming communities. Traditional cultures became transformed in many different ways, and this has been happening now for almost a hundred

years, so that any community which we may think of as traditional today is vastly different from any community which would have been called "traditional" by the first, and later, colonial settlers and administrators.⁵

Indeed it is hard today to find communities that have a tight internal organization in the sense of a "folk" society and which have a way of life based wholly on local resources. Most family-households today are living outside any really integrated community structure in this closed sense. Some of the remotest communities in Africa are found to have strong ties to overseas countries through wage earning members.

There are many communities where families are still bound by cultural associations and where some collective kinds of resource management persist, but even the nature of such collective strategies has often been changed, to include the management of money resources from non-local sources, as well as the agricultural management of crops or animals for sale. The ties that bind people may be different ties and the kinds of goods involved in transactions may be different goods from those which were

⁵Indigenous African societies were touched by outside influences long before the major period of European colonial occupation, but it was this process, sanctioned by the Berlin Conference in 1884, which caused African communities and families to be brought more and more into the world economy, first through their absorption into colonial

"traditionally" part of the culture.

Although the impacts of change were obviously differential, and although there is a great variety of economic and environmental situation in which African families and their households find their livelihoods, there is, nevertheless, a common dimension to the change processes which have affected them. It is a common dimension which overrides local differences and there is a wealth of empirical data which documents it. The common factors in the change process can be usefully summarized under the headings: effects of the anti-family policies of colonial authority; impacts of land alienation and dislocation of indigenous domestic economies; impacts of commercialization; effects of the intervention of the colonial administration and the spread of services. These are not, of course, separate from each other but they may be examined separately for the purpose of understanding the processes.

Anti-family Policies of the Colonial Authority

Notwithstanding that some individual officers of the colonial regimes were sympathetic to the needs of African families and communities sometimes protesting the adverse effects of government policies at local levels, the general

territories, and later into national economies, whose boundaries were not all congruent with those of the colonial units.

attitude to the Africans was one of indifference if not of callous disregard. Colonial policies were, without exception, anti-family as far as African society was concerned.

The needs of the "modern" society were made paramount and there was an almost crusading spirit to the attempts to draw Africans into it, at the lowest levels as "cheap labor." There was a widespread assumption that while "traditional" ways were poor and "primitive" they could nevertheless support any number of people at this level of poverty, and that no thought need be taken for their providence. Colonial wages were thus openly based on this assumption, that all family needs could be met from subsistence farms and that the worker need only be paid enough for his own subsistence in town or on the European farm. Wages were paid therefore to single men and not meant to provide for families, and the needs of the single man were often very meanly calculated to a bare minimum of necessities (Table 17).

An example from Kenya is the Report of the Committee on African Wages (1954). It includes a detailed and itemized monthly allowance, covering food, fuel, clothing, and soap, on which the formula for the calculation of the minimum wage was based. It was not generous. For all other needs the worker was expected to be able to rely upon

TABLE 17

EXAMPLE OF COLONIAL WAGE FORMULA FOR AFRICANS
FOR SINGLE MAN 1954

Costing of Minimum Wage Formula Using both
Actual and Controlled Prices
Nairobi--December, 1953

Item	Monthly Allowance	Unit Price		Monthly Cost	
		Actual	Con- trolled	Actual	Con- trolled
		Sh.cts.	Sh.cts.	Sh.cts.	Sh.cts.
Maize Meal. . .	36 lb.	0 .28	0 .28	10 .44	10 .08
Wheat Flour . .	5½ lb.	0 .50	0 .50	2 .75	2 .75
Potatoes. . . .	15 lb.	0 .19	-- --	2 .85	2 .85
Sugar	2 lb.	0 .71	0 .53	1 .42	1 .06
Beans (dried) .	8 lb.	0 .47	-- --	3 .76	3 .76
Meat (3rd grade)	4½ lb.	1 .46	1 .00	6 .57	4 .50
Green vegeta- bles (Kunde). .	7½ lb.	0 .30	-- --	2 .25	2 .25
Milk	7½ pts.	0 .40	0 .39	3 .00	2 .93
Cooking fat . .	1 lb.	1 .95	-- --	1 .95	1 .95
Salt	1 lb.	0 .19	-- --	0 .19	0 .19
Tea	½ lb.	3 .20	-- --	1 .60	1 .60
Total Food				36 .78	33 .92
K.D. Shirt . .	1/6	7 .43	-- --	1 .24	1 .24
K.D. Shorts . .	1/6	7 .80	-- --	1 .30	1 .30
K.D. Jacket . .	1/24	26 .78	-- --	1 .12	1 .12
K.D. Trousers .	1/24	17 .57	-- --	0 .73	0 .73
Cotton Vest . .	1/6	1 .86	-- --	0 .31	0 .31
Blanket	1/12	7 .64	-- --	0 .64	0 .64
Total Clothing				5 .34	5 .34

TABLE 17 -Continued

Item	Monthly Allowance	Unit Price		Monthly Cost	
		Actual	Con- trolled	Actual	Con- trolled
		Sh.cts.	Sh.cts.	Sh.cts.	Sh.cts.
Charcoal* . .	1 x 70 lb. bag	4 .60	4 .40	4 .60	4 .40
Paraffin . .	3 pts.	0 .42	-- --	1 .26	1 .26
Total Fuel and Lighting				5 .86	5 .66
Soap. . . .	2 lb.	1 .26	-- --	2 .52	2 .52
Cleaning Materials				2 .52	2 .52

*Report of the Committee on African Wages (the so-called "Carpenter Report") (Nairobi Government Printer, 1954), p. 67.

*The controlled price taken in the case of charcoal is that for the 70-lb. bag.
\$US1 = 5 Ksh (1954 exchange rate).

his traditional forms of subsistence. The classic statement on this policy from Kenya is that made by Lord Hailey "...responsibility towards them (laborers) will be discharged if they are remunerated at rates suitable to a single man and are adequately fed and housed in their temporary place of employment" (Lord Hailey, 1957).

The terms and conditions of European employment were poor and miserable. In some places they were intolerable. In French West Africa, for instance, there was forced labor, no better than slavery, instituted by the French colonial authorities to supply workers for railway construction and for the agricultural plantations in the coastal regions.⁶ In Kenya coercive measures to force labor out of the traditional areas and into European employment followed the imposition of a hut tax in 1901, designed to stimulate the need for "natives" to earn cash for its payment. Even the timing of the tax collection was planned to facilitate recruitment of labor for the settlers, so that the tax demands were made

⁶The cruel memories remain with many of the older men to this day. Mme. Lallemand (1977: 17) interviewing a Mossi family in Upper Volta in 1977 recounts that Naaba, the lineage chief of the village of Bamtenga, ...est né avec le siècle... Jeune homme, il fut réquisitionné par l'administration qui l'affecta à la construction d'un tronçon de voie ferrée, au Sénégal. De ce périple forcé, qui le conduisit à Ouahigouya, à Mopti, à Bamako et à Dakar, il se souvient avec horreur... Il ne participa jamais ensuite aux émigrations volontaires qu'elles hommes de sa génération effectuaient déjà vers les zones

just before the harvest peak need for labor. When the Africans refused or were unable to pay their taxes, the seizure of livestock, the imprisonment of defaulters, and the burning of huts, were the drastic measures taken against them by the colonial administration. Eventually public opinion in England was such that terrorist activities were forbidden, but as late as 1932 the Governor was claiming that he had every justification for taking these stern reprisals under the Native Hut and Poll Tax Ordinance (van Zwanenberg, 1975). In addition to these outright attacks, the callous restriction of land for "native subsistence" was also part of the policies that were deliberately aimed at forcing Africans into the labor force.

Everywhere the need of the settlers, companies, and colonial governments was for labor, and everywhere the measures used to obtain it were remarkably similar.⁷ These included tax imposition, forced recruitment, restrictions

côtières....

Essentially, Nasba says, that as a result of his experiences as a young man, he cannot take part in working now in the coastal regions as many of his contemporaries have done.

⁷This is documented very fully in the following: Arrighi, 1970, Palmer and Parsons, 1977, Rodney, 1972, van Zwanenberg, 1975, Sorrenson, 1968, Amin, 1974, and O'Keefe and Wisner, 1977.

on marketing of animals or crops, which provided Africans with alternatives to employment as a way of getting the cash necessary for their taxes. No thought was taken for the effects this would have on African family life. At best there were, in some countries, attempts to bring some responsibility for the welfare of workers into the terms on which they were employed. Thus, in Kenya the Administration in 1907 announced that it would try to supply labor for the settlers if certain obligations were met by them as employers. This was resisted.

The African family, wherever free from direct coercion, attempted to meet the need for cash which had been forced upon it by tax imposition in almost any way which would allow them to keep away from working directly for the Europeans. They tried to maintain their subsistence farming despite the measures taken against them by land take-overs. "Now that my people were under foreign rule," wrote Lawrence Vambe of the Shona tribe in Rhodesia, "they believed even more firmly than they had before that self-sufficiency in their own food supplies was essential to their limited freedom" (Vambe, 1972).

They tried to sell surplus crops to the settlers to find money for taxes. In Rhodesia the colonial authority soon began to close out this option. A report dated 1902 by the Compound Inspector of the mines at Selukwe suggested

that the mining companies should grow their own grain if they were to keep an adequate labor supply, so that "in order to pay his taxes and meet his other requirements," the "native" would have to "bring into bearing his only other source of income, that is his own labor" (Gov. of Rhodesia, 1902).

When grain prices fell, people tried to sell cattle. "Large numbers of cattle have been sold by the natives, and... cattle have risen in value...(which)...naturally affects the labor supply... The majority of peasants are not anxious to leave their homes and prefer selling their stock" (Palmer and Parsons, 1977: 263) wrote one Native Commissioner in 1908.

African families found it increasingly difficult to maintain their own ways of life and meet the demands of the colonial authorities as time passed. Many in Rhodesia, in Kenya, and in other countries, were forced eventually to settle themselves on the established Native Reserves and these Reserves were seen by the authorities as a recruiting ground for native labor. A settler in Kenya noted in 1919 that the more prosperous these were the less need or inclination the "young men of the tribe" would have to go out into the labor field, and this was clearly a plea that they should not be allowed to become too "prosperous" (Oliver, 1929). The settler echoed the sentiments of the

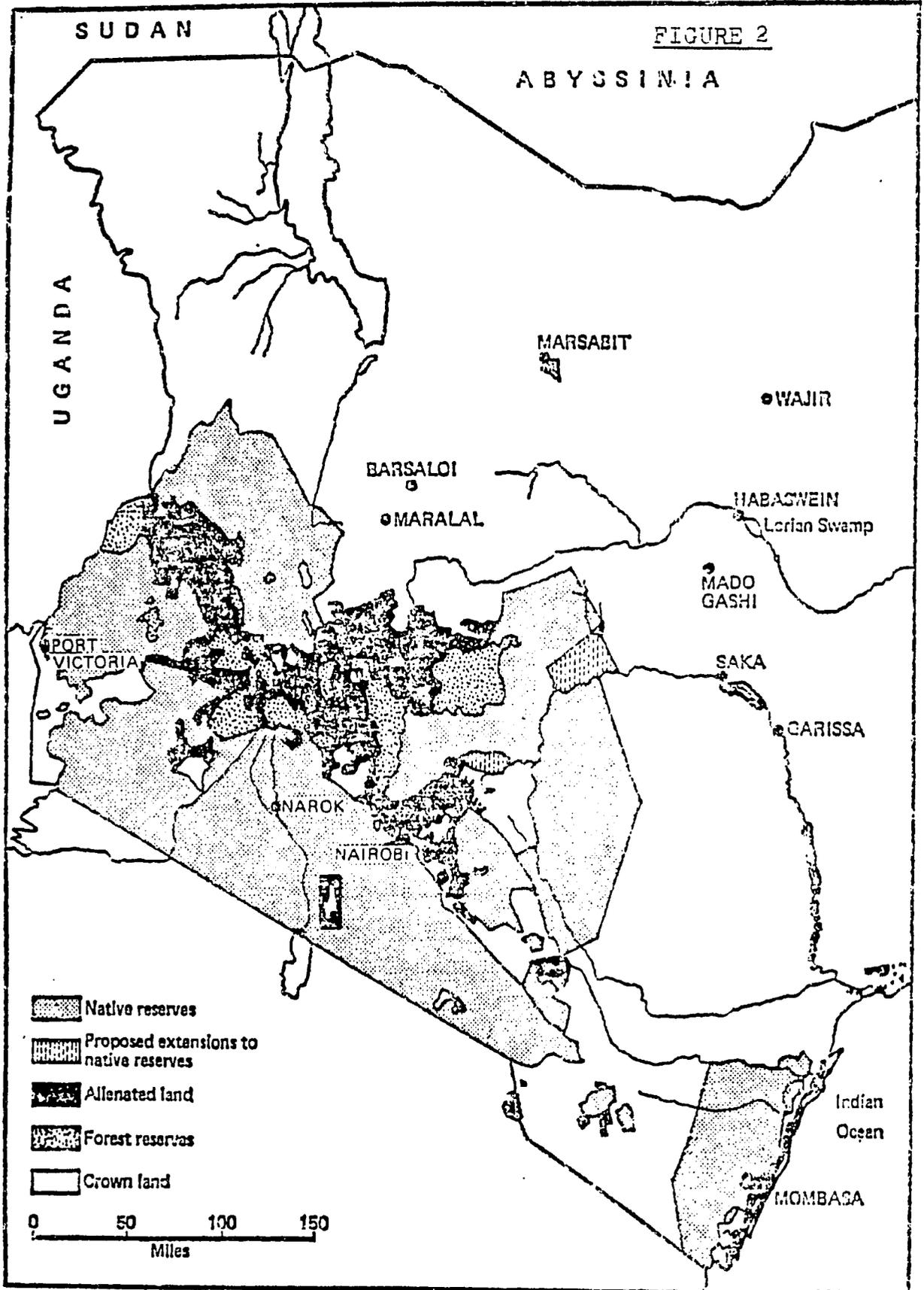
time, that Africans should be made to work for the Europeans in the name of progress.

Today the outflow of labor is voluntary as people supplement poverty subsistence or seek incomes where land shortages reduce their ability to feed themselves.⁸ Since unemployment is high and wages low, a pattern of separation still tends to be maintained between migrant workers and farming households, though government policies are no longer directed towards this end.

Land Alienation and Dislocation of Indigenous Economies

The exigencies of African farming systems were ignored by colonists who appropriated much of the best land in countries like Rhodesia and Kenya, confining Africans to Reserves even when land designated "European" remained unfarmed. African agricultural systems were almost invisible to Europeans such as Sir Charles Elliot who wrote with conviction in 1905 that in East Africa the British "have...the rare experience of dealing with a 'tabula rasa,' an almost untouched and sparsely inhabited country" (Sorrenson, 1968). Local officials warned the Commissioner against dispossessing Kikuyu people from the highlands and Masai from the rift valley, but he saw it as his duty to "attract settlers" to the Protectorate.

⁸Present economic migration streams are often channeled in the same direction as those initiated by colonial authorities though economic migration is now a world wide phenomenon and not the unique creation of colonialism (Piore, 1979).



Eventually he had to resign but settler rights prevailed over both local objections and those of the Colonial Office in London. In the last resort it was agreed that economic development depended on European settlement.

Alienated land in Kenya, most of which was in the area known as the highlands (later to be known as the White Highlands) amounted to about one-twentieth of the total area by 1959, but this was about one-fifth or more of the arable land of the country and during a period when African population had increased by 120 per cent. Even more significant than the actual figures though is the history of disruption which they represent.

The actual loss of land by the Africans to the Europeans, which was a process which took place over the years between Eliot's time and the granting of independence in 1963, not something which happened all at once, was not simply a loss of property but a loss of livelihood. It was also a loss of security as buffer areas between tribal territories were occupied and lifted out of the prevailing system.

The question of native rights was raised many times but few of the Europeans understood or attempted to understand African agricultural systems on which the native subsistence depended. Most assumed that any land currently

unoccupied was free for settlement, or that people who were dispossessed from one region could easily find more land to use elsewhere for their "primitive" cultivation. In fact careful ordering of fallows, which left land free of crops or animals for long periods, was part of many farming systems, while African systems of land use and tenure were varied and complicated so that individuals and groups who suffered losses were not always able to establish new user rights in other places.

A letter written by a Kikuyu tribesman in 1914 to the District Commissioner puts the point poignantly. He writes,

These ten Europeans have built (there on his farm) and not one of them has bought from me. Now if my goats go there or if I want firewood I have to pay for it. I have no place to live and I am a prisoner. Some Kikuyu have had left to them a remnant but I have not even a little...all has been sold by you of the Government, and now all our people have gone, some to Njoro, some to Mukoma's at Limuru, others to Kinyanjui, others to Ukamba, others to Fort Hall, because they have no place where they may cultivate." He was trying to obtain redress by complaining, but the Chief Justice, who was consulted, said that he and his people "had no legal case as far as their ability to prove their title to land is concerned (D.O. Kiambu, Political Record Book, 1914).

The Foreign Office by this time had assumed all rights in land as Crown title, and asserted that the African had no rights, only a temporary usufruct based on the crops and animals which occupied land. Previously, while denying the existence of any individual or family ownership, of which they said there was no proof despite the fact that

many settled farming communities had very clear arrangements for the ownership of land and cultivation or grazing rights, they had accepted the idea of tribal or communal ownership which they thought was the common pattern for all African groups. In 1899 they denied even this communal ownership (F.O. to Law Officers of the Crown, 1899).

The Kikuyu, to which group the letter writer belonged, had very well defined ownership patterns based on lineage groups in addition to a system of user rights which amounted to a form of tenancy arrangement (Lambert, 1950).

The Europeans assumed that any land which appeared to them to be unoccupied was free for their use and persuaded themselves that no hardship could come to the Africans by the taking of such land. They either did not recognize, or did not wish to recognize, that these lands often formed part of complex resource use systems as fallow or rough grazing. Thus the Crown Lands Ordinance of 1902 in Kenya allowed the Commissioner to sell or lease land which surrounded African villages or settlements, though it was obvious that these lands were part of their economic resources. Where truly unoccupied land existed, the settlers did not want it. This was wasteland, avoided by Africans because it was fly infested or waterless, and the settlers soon discovered that the fact of African occupation was in itself a sign of good land.

The examples have been taken from Kenya; and the history of Kenya, from the days of the Protectorate to the beginning of independence, illustrate very well the ways in which the Africans were dislocated, disrupted in their ways of living, and deprived of their resources. Despite the differences in detail the picture can be taken to be representative of European attitudes and actions in general in areas where European settlement took place such as Zambia, Zimbabwe, Malawi, and Southern Africa.

Farming and herding systems, which had a good deal of built in flexibility and were based on accumulated local knowledge of their environments, involving complex temporal and spatial kinds of management, were altered so radically that the communities which remained were operating in a wholly different environmental and economic context. They could no longer be considered to be the same as the pre-colonial communities, though they continued to be referred to as "traditional" communities, and they are often so described today.

For those who were completely dispossessed, like the Kikuyu, one of the options for those unable to find land to cultivate elsewhere was to remain as a squatter on lands which had been taken by the settlers. Here the African might be allowed to grow his own food crops and graze his animals in return for his labor on the European farm, so

long as this was agreeable to the owner. This was hardly a continuation of any traditional farming system, however, though again it might be designated as "traditional" in a disapproving sense.

Neither could it be argued that the agriculture practiced on the Native Reserves, where "natives" were "bunched together" and separated from the Europeans, constituted any kind of "traditional" system in the indigenous sense, where their whole resource base was so completely changed. The Native Reserves were always the poorest land areas and even after their establishment boundaries were altered if it suited the convenience of the Europeans. This system was begun in Kenya in 1904, and it was also practiced in a number of other countries of eastern and southern Africa, the main areas of white settler occupation. These included Zambia, Rhodesia (now Zimbabwe), Swaziland, Lesotho and Botswana.

In other parts of Africa such as West and Central Africa land alienation involved less European farming and more of the plantation type of agriculture. It was small in total amount but affected large areas in some countries such as Zaire (formerly the Congo) and the Cameroons, the Ivory Coast, and Liberia.⁹ In these countries African family

⁹For example, in the Ivory Coast the amount of plantation land was 50 per cent of the total cultivated land.

groups were also dispossessed and their systems of livelihood changed or destroyed.

In northern Africa the Africans were pushed farther and farther into the drier areas of the hinterland as the European settlers occupied the fertile coastlands and organized large estates for viticulture and for the growing of vegetables and citrus fruits for European markets (Dresch, J., 1975; Despois and Raynal, 1967, and Isnard, H., 1966).

In Africa today the term "traditional" needs to be clarified if the indigenous societies and systems are to be understood in any effective way, because of the effects upon them of these events. It is not that these societies were perfect examples of "primitive communism" or necessarily even well organized resource use systems, though some were very efficient users of what are now called marginal lands, but that they had ways of managing which included some real

In the Cameroons and Togoland, German colonizers attempted to turn the whole country into plantations but it is now estimated that five per cent of the total cultivated area is in estates. In Liberia over a million acres were leased to the Firestone Rubber Company in 1926 for ninety-nine years, and the Goodrich Company acquired further land for plantations in 1954. In Zaire (Congo) there are some 80,000 acres in palm oil plantations and another 30,000 acres in rubber. In East Africa only the island of Mauritius was affected by plantation agriculture on a large scale and here over 50 per cent of the cultivated land was taken up by plantations (Beckford, 1972).

understanding of their vulnerability to risk from droughts or floods, insects, wild animals, diseases, and other hazards of their environment, and it was these management systems which were altered by the advent of the Europeans.

The effects of land alienation, combined with the effects of the labor alienation discussed in the preceding section, was to despoil African family life in a systematic way which has led to the present day impoverished rural systems and has threatened the ability of people to feed themselves and to maintain lands for cultivation and grazing.¹⁰

Impacts of Commercialization

Trade with Europeans began before colonization in some areas of the continent, notably in the coastal regions,

¹⁰ Colonial reports from many countries made reference to the fact that Africans were increasingly unable to feed themselves and that they were impoverishing their lands through "overpopulation." This was attributed to inefficient "native" farming and herding management practices, and in some areas the "fragmentation" of holdings by inheritance customs, but the fact that Africans had been deprived of much of their land resource and lost much of their labor, as well as their rights to move about and use different kinds of land, was rarely taken into account. The classic documents are those relating to the Kikuyu in Kenya where the "land problem" eventually became the cause of rebellion (Thomas and Whittington, 1969, Ominde, 1968).

The notion of a land "carrying capacity" analogous with the idea of an animal carrying capacity, much resented by the Africans and by many research workers, was allied to this "over-population" concept in terms of subsistence agriculture. See also Allen, 1965.

and especially those of West Africa. Here trading companies established themselves and later entrenched themselves as the exporters of African produced cash crops such as cotton, coffee, cocoa, palm oil, and groundnuts, turning around the earlier patterns of indigenous commerce which were towards the interior (Meillassoux, C. 1971). Here what has been called a form of "rural capitalism" evolved as African family-households got into the business of growing cash crops and in marketing them (Hill, 1976; Hopkins, 1973). In contrast to the areas in eastern and southern Africa, both the French and British colonial officials in West Africa confirmed African land rights and encouraged the development of indigenous independent export producers (Hopkins, 1973).

On the face of it, therefore, the introduction of cash cropping in this region might be thought to have been less disruptive of family life, particularly as there were many instances of fitting the cash crop into the indigenous agricultural systems. This was not the case, however, for the extension of cash cropping here and in other parts of the continent had very profound effects on the domestic economies.

In West Africa, where today the greatest amounts of cash crops for export come from African smallholdings and only 5 per cent come from plantations or estates, the

effects have been to alter entirely the use of land and labor, altering in the process the ways in which land is allocated and the relationships among family members and household members which were based on these. Competition with subsistence crops, the entry of men into the cultivation process formerly the province of women, the migration of family members from one area to another to seek "farms" or to take up share cropping on farms owned by other Africans, the dealings in land, and the general effects of trade and the availability of money in the economy, all added together to alter the basic systems on which the household economies had operated (Hill, 1976, Hunter, 1962, Kamarck, 1967).

Cash cropping by Africans was a feature of certain "islands" of activity which developed across the continent, not characteristic of all places, for reasons of climate, accessibility, monopolization of markets by Europeans, and other local factors. Ethiopia, for instance, was too remote. Kenya was dominated until independence by European agriculture, with African participation restricted. Much of the interior of the continent was both too dry and too far away from transport for cash cropping to be viable.

In Tanzania and in Uganda, as in West Africa, the African farming families were quick to seize upon any chance to grow cash crops and there are significant areas of

African smallholder farming in these countries such as the coffee areas near Lake Victoria and Kilimanjaro, the cotton growing areas of Uganda and of Sukumaland in Tanzania. In the latter area family-households have today about six to nine acres of land, about half of which is in cotton and half in subsistence crops, while newer lands are being taken over for rice cultivation (Collinson, 1972; Rald, 1975, De Wilde, 1967).

Wherever there was cash cropping, new kinds of institutions developed for marketing and financing, new interventions in farming systems came from the work of the agricultural extension services introducing new technology and the use of pesticides and fertilizers; and the need for cash inputs into farming grew. Labor began to be hired, and cash came to be used in investment, in education, in housing, and in buying cattle. Money came to be used to buy food as well as for clothes and fuel and other household goods. Money even became used for traditional expenses such as those associated with weddings and other ceremonies.

Along with these changes went changes in the organization of the household and in the way decisions were made about farming, trading, and spending. The impacts of commercialization through cash cropping were as far reaching as the impacts of the colonial organization had been.

Commercialization did not, of course, only involve

cash cropping. European plantation estates and mines attracted workers as the cash economy spread and the needs for cash in family-households increased from that original need to find tax money. Settlement schemes and new types of tenant schemes, such as the Gezira cotton scheme, brought changes in land use, labor use, and in the relations between people. Trading of all kinds increased, including trading in cattle and other livestock, though this was, for a number of complex reasons, never as widespread as trading in crops (Rigby, 1969; Horowitz, 1977).

Even those Africans who were not directly involved in commerce were affected by the opening up of roads and railways which cut through their farming areas, dividing lands, destroying soils, and taking up fuel resources from the woodlands for construction and the firing of railway engines.

Finally, the growth of the towns and cities, today the magnets which attract the Africans in huge numbers to try their luck at finding a better life, not only altered land use and ownership and patterns of employment in their immediate vicinities, but altered the whole spatial order of countries and channelled the processes of modernization and change (Gould, 1970; Soja, 1968).

Intervention of the Colonial Administration
and the Spread of Services

Because most African family-households are involved in farming, it is the services associated with agriculture which have had the most significant effects on them. External interventions into agricultural systems are at the same time interventions into the livelihood systems of African families. Intervention is presently through government agencies and donors from abroad who are associated with these in various ways, but this kind of intervention has a long history dating back into the colonial period.

There are two major kinds of intervention, and both involve a loss of initiative in planning productive strategies. There is an increasing level of dependence on outside supplies to the farming system, an increasing need for cash to make full use of innovations or even to participate, and an increase in risks through indebtedness, because marketing is organized by the government and its agencies so that it lies beyond the control of the individual farming family who cannot begin to forecast market movements (Hunt, 1978; Berry, 1976; Mesnil, 1970).

The two kinds of intervention are those where the agricultural services are brought to the family-household's own holding, and the other is direct intervention where people are moved, or move, on to planned schemes. In

TABLE 18

RELATIVE SIGNIFICANCE OF PLANNED SCHEMES IN AFRICAN HOUSEHOLD ECONOMIES, SHOWN BY PROPORTION OF HOUSEHOLDS INVOLVED IN FIVE SELECTED COUNTRIES

COUNTRY	AREA/SCHEME	PERCENTAGE OF FAMILY-HOUSEHOLDS INVOLVED
SUDAN	GEZIRA AND OTHER MAJOR IRRIGATION SCHEMES	10-20% OF ALL RURAL HOUSEHOLDS ¹
	KHASHM EL GIRBA SETTLEMENT OF THE SHUKRIYA	30% OF ALL HOUSEHOLDS ²
		15% OF ADULT SHUKRIYA
KENYA	MILLION ACRE SCHEME (HIGHLANDS) RESETTLEMENT, MWEA IRRIGATION SCHEME, AND OTHERS	5% OF ALL HOUSEHOLDS
TANZANIA	UJAMAA VILLAGERS	50% OF ALL HOUSEHOLDS (CLAIMED)
SOMALIA	BAY REGION IRRIGATION	5% OF ALL HOUSEHOLDS IN THE REGION
		0.5% OF ALL HOUSEHOLDS
MALI	OFFICE DU NIGER AND OTHER PROJECTS IRRIGATION	0.5% OF ALL HOUSEHOLDS

SOURCES: Sorbo, 1977; ILO Mission Report on the Sudan, 1976; Odingo, 1971; Mascarenhas, 1978; Berry, 1980.

NOTE: 1. Many rural Sudanese households are involved, half directly, the rest through seasonal labor.

2. Former nomads are now tenants on irrigation schemes.

the latter case, the conditions for participation and for the provision of seeds, fertilizers, and other benefits are usually tied to the acceptance of directives from the planning unit and the extension workers in the field. Families can be expelled in some places for non-compliance so that the loss of independence is very real. The farming households become "participants," "settlers," or "selected tenants" and have to accept a large degree of control in the management of their resources and their organization of labor and of work. This varies from what is known as "close supervision" to actual force (De Wilde, 1967; Chambers, 1969; 1974), (Table 18).

Sometimes the advice given is inappropriate, uneconomic to the farmers, or ecologically unsound, coming as it often does from a ministry and left to be put into effect by field officers who "do not know what they are going to do until they have actually begun to do it" (Oyugi, 1973). In these circumstances family-household groups have to put up with changes of place, changes in production systems, and the "petty tyranny" of field workers seen as "emissaries" of the government who interfere with their decision making (Hunter, 1969). Even where the projects are sound and the extension workers are helpful, the farmers often find themselves dealing with matters which are beyond their control, new risks being added to the old and known risks

that are part of dealing with the African agricultural environment.

In general it can be said that most planned settlement schemes in Africa have failed to achieve their intended purposes (Changiers, 1969, 1974; de Wilde, 1967, 1973; Mesnil, 1970). There are a number of reasons why this is so, including high costs relative to output, given the constraints on the participants, lack of participants in adequate numbers to make a scheme viable, and the frequent unsuitability (or too high cost) of equipment such as tractors or, more often, plows for the type of soil, level of expertise of the workforce, or availability of labor. For instance, in some cases it has been found that more labor hours have been needed to uproot tree stumps in preparation for tractor use than are needed to prepare the land for cultivation by indigenous methods. Sometimes the use of tractors or plows has meant that more land can be prepared than can be planted because of labor bottlenecks at a later stage in cultivation. Since labor is often the limiting factor in African agriculture, (I.L.O. 1973; de Wilde, 1967; U.S.A.I.D. 1980), this makes the use of such equipment inefficient. In the case of the Office du Niger, a planned scheme in Mali, West Africa, for example, one reason for the comparative lack of success was "the inability to settle in the area a sufficient number of cultivators" (I.L.O. 1973: 77). Furthermore,

it is said that "the rather low level of net income achieved was not conducive to the attraction of more Mali tenants, particularly after cotton was successfully introduced in the rainfed areas and provided Mali farmers with a good source of cash income." Nor was it possible, in these circumstances to recruit much paid labor to supplement the manpower resources contributed by the tenants. The Gezira scheme (in the Republic of the Sudan) on the other hand, proved much more successful. While the land allocations under this scheme considerably exceeded the capacity of the tenants to manage them with their own family labor, the tenants were able to earn higher net incomes and could both find and pay for necessary additional labor from the poorer neighboring areas (I.L.O. 1973: 77). The success of planned schemes has been more related to external factors, such as the availability of hired labor as in the case of the Gezira scheme in the Sudan or the Mwea scheme in Kenya, or the ability of scheme tenants to utilize a combination of off-scheme and on-scheme resources as in the case of the Khasm el Girba scheme in the Sudan, than it has been related to the design and implementation strategies of the planners.

Experience shows that people are wary of giving up

known sources of either food or cash "income" for new and possibly less secure sources despite the promises made by governments of improvement in their living standards. To minimize the risks the family group may divide itself into on-scheme and off-scheme components, rather than making the full commitment envisaged by the planners. This has been noted in a number of places. It has been a common strategy in change and was noted in Ghana where migrant cocoa farmers set up "camps" in the new farming regions while maintaining their home bases in the older regions (Hill, 1970). It was also noted in Upper Volta where Mossi family groups moving into new agricultural lands in the southwest of the country made similar kinds of arrangements (Kohler, 1972). Livelihood systems, then, involve complex mixes of resources and complex patterns of activity (Haaland, G., 1977; Sorbo, G., 1977; Murdock, 1979).

In the case of extension work by government agencies directed to farming families on their own holdings, there is still a high degree of intervention in the production systems but without the almost total loss of initiative which can happen in the case of the planned scheme. Whether the advice is directed towards the production of cash crops or food crops, it covers matters such as planting techniques, the time of planting, weeding and the proper application of fertilizer, and the use of equipment, and is thus

an intrusion into the normal decision making processes of the household group. New ways of farm management are imposed or recommended, including financial management, and the family-households are often pressed into taking on debts which are worrisome to them (Mesnil, 1970).

Some families become sceptical of government assistance when the promised inputs, such as seeds and pesticides, fail to arrive or come too late for the planting times. Some keep back seeds from their harvests for next year's planting in the traditional way. Others move in the direction of expecting the government to come to their aid; they have come to rely on institutional support and to demand it.¹¹

Extension agricultural services have been generally more concerned with the cultivation of crops, particularly cash crops, than with the management of livestock, but there have been efforts made to improve livestock quality from the early colonial days and more recently there have

¹¹Mbithi (1977: 31) writes of farmers in Kenya: A strong agent influence reinforced by top down planning and resource flow pattern has created dependency among farmers by enhancing the perception that government will, and can, do everything, i.e. they will organize the farm inputs, subsidize them, transport them, send someone to advise, offer loans, take the risks of failure, write off loans, organize marketing, and give you the money in a bag and not through an account.

The Kenyan Marginal/Semi-Arid Lands Pre-Investment Inventory Report (1978) made similar findings.

been attempts to set up ranching schemes in many of the semi-arid areas. The aims of these have been mixed. There has nearly always been some element of the desire to "settle" the pastoral people, to make them a more orderly part of society. This has been combined recently with the idea of cattle as a "cash" source for people who have little chance to grow cash crops. Goals also include better environmental management where the traditional strategies for dealing with pasture shortages and variations from place to place have been disrupted.

Pastoral family groups have not been exempt from the processes of change in Africa any more than the cultivators have. Their livelihood systems are no more "traditional" in the sense of coherent closed groups of traditional managers than theirs are. Appearances can be deceptive and people living in tents and herding animals may seem to be living in the traditions of an earlier time, but closer observation often reveals that not only may they be involved in some commercial livestock scheme, but that they may also have family members working away in the town or even studying at the university.

Customary ways of life have been so altered, and the resources and the environments of people so changed, that the African family-household today finds its livelihood in a totally different context.

There is a great disparity in Africa in the provision of services such as health, education, the provision of piped water, transport, and the organization of agricultural services, credit and marketing cooperatives.

In early colonial times intervention into agricultural systems was aimed at increasing the production of export crops and improving the tax base. The emphasis was more on land than on people. Outside these interventions, the first provision of services was to urban populations. This was because the colonial economies had their bases in urban areas and themselves created other urban settlements. Consequently, the impress of the colonial economy created inequality in service distribution as economic growth proceeded. Even today health facilities, education services, and all the amenity services such as the provision of piped water, sewerage, and electricity, are all better provided for in the towns and the cities than they are in the rural areas. Despite much discussion of integrated rural development, governments still concentrate the development of services in the larger urban areas. For example, the amount of funding allocated for all rural water development in Kenya today is about half of that allocated to the two major centers of Nairobi and Mombasa (Gaile, 1979).

The first roads and railways in the development of the colonies were made not to spread services to the

population but to link up the nodes of European settlement and to provide for the policing of the various territories. They were also made to provide the outlet for people, as laborers to the colonial economy, and for agricultural and other goods and produce for export. They were essentially outward looking, designed to link the colonies with the metropolitan centers, not designed to integrate the colonies themselves.

There has since been some infilling of these skeleton networks, but the picture is still one of great inequality with many rural areas beyond the reach of effective health care, education, or even the most rudimentary systems of water supply and other like amenities. People still walk miles to find a doctor and often send their children to stay with relatives in the town for schooling. The existence of better services in the urban areas is yet another reason for the influx of migrants into these areas, and for the immense pressure on limited services that characterizes such places today. These inequalities are common to many African countries, and everywhere the livelihoods of people are affected by the differential access to services.

Both health and education had their earliest beginnings in missionary endeavor and have since become the concern of government ministries and international agencies. Again, their origins are still apparent in the better

provision of hospitals and schools in those regions where missionaries settled. For example the regions of Bukoba and of Kilimanjaro in Tanzania continue to enjoy particular advantages that stem from that early start.

Health services have had two main thrusts. One has been to control the life threatening diseases such as leprosy, cholera, river blindness, sleeping sickness, malaria, smallpox, and other maladies endemic in Africa. The other has been to bring better general health care, in particular to improve nutrition for mothers and children. The use of the radio to disseminate information on health care beyond the nodal urban places has been a widespread development since independence.

The effect of both of these major thrusts has been to bring a general lowering of the death rates, especially to lower the rates of infant and child mortality. Since birth rates have continued to remain high, in accord with African cultural tradition, there has been a significant increase in population, particularly a significant increase in the numbers of young people. In some countries as many as 50 per cent of the population are under the age of 15. What is known as the "demographic transition," when birth rates have been seen to fall as death rates are lowered, is not yet happening in Africa (Caldwell, 1975, Handwerker, 1977).

This increase in population is reflected in an increased demand for services, particularly for health and education services, which African governments are finding it hard to meet. In the urban regions it also leads to increased demand for housing, to overcrowding of the existing dwellings places, to pressure on all forms of facilities, and to the continuance of the unsanitary "shanty towns" on the outskirts of many cities. Outside the towns and cities, it is reflected in more pressure on local land resources and on food supplies, where local densities are high, though there is more differentiation in the rural parts of Africa and overall densities are not high in many countries. Where rural densities are high some people are forced out of agriculture and swell the numbers moving to the cities, or else they find work on larger farms as hired laborers. The redistribution arrangements, by which land was allocated to the following generation by the family elders in most African communities, have generally broken down in regions where pressure on land resources has reached this point.¹²

¹²The flexibility of land resource management which was characteristic of many African societies had been destroyed by the fixing of colonial boundaries and the disruption of land use associated with colonization and commercialization, and the old kinds of familial arrangements were no longer able to cope with the demands of new generations needing land. In many African groups land was generally held by a family or lineage group, and household

The effects of education services on the African household have been very far reaching. The sending of children to school has sometimes been a direct expense which the family hoped to recoup later from the expected higher earnings which the educated could command, a situation that has markedly changed though the expectations of parents have not (ILO, 1972, 1973).

The hopes of better rewards from education have also prompted some family groups and even village groups to band together to support members at school, while the ongoing nature of inter-family responsibilities in Africa has its effect in the way siblings are often expected to help each others' children as well as each other in getting an education.

The result, from the family-household perspective, is that work organization within the group is changed so that children are no longer always available for the

use was based on need, though it could be granted for long periods. The ideology was that all men, sometimes even including "strangers," had a right to basic subsistence and therefore to land for use. This idea should not be confused, however, with notions of equality for many groups were hierarchical in social structure. (The Buhaya for instance in Tanzania and the Mossi in Upper Volta.) This way of dealing with land allocation which took into account the changing needs of family-household groups was no longer an option in many areas at the same time that pressures on land resources had been increased.

household tasks and moreover are not ready to take these up again when they return to the household for longer or shorter periods. A feeling of superiority alters relationships. The remittances from the higher paid jobs can be a recompense for this but either way there is a disruption and change in the household (ILO, 1972).

The provision of services to some has meant the withdrawal of resources to others. Farmers near Bamako, in Mali, are forbidden to cut firewood within a certain distance of the town but they are not offered any alternative except the option of paying high prices for charcoal. The provision of electricity to towns is often at the cost of disruption of land and water use elsewhere, where hydroelectric dams are built, and local people left to make whatever adjustments they can (Horowitz, 1977).

An example from West Africa will illustrate how this occurs in practice. The city of Niamey in Niger receives its electricity from the Kainji dam in Nigeria. The urban consumer in this case benefits at the expense of village farmers and fishermen hundreds of miles away in another country. A research project carried out by Adeniyi in 1973 found that 2,000 acres of floodwater cultivation land were lost to three villages alone that were located within 200 miles downstream of the dam. These lands can no longer be cultivated by the customary means because they are no

longer flooded during the dry season because of the retention of the waters by the Kainji reservoir. In addition, the people lost both moisture and fertile alluvial sediments which resulted in lower swamp-rice yields, estimated at an 18 per cent decrease. The reduced natural flooding also affected the downriver fisheries and the researcher recorded that the income of fishermen in the three villages decreased by 73 per cent, 60 per cent, and 47 per cent (Brokensha, Horowitz, and Scudder, 1977).

Summary of the Effects of Change

Taking each of the four headings under which these processes of change were reviewed, we can summarize the common effects of them. The anti-family policies of the colonial governments had their greatest impact through the process now known as "labor alienation," which was to separate families into rural and urban components and to force upon them both, the need for cash to pay taxes, so leading to the present situation where households commonly have a cash and a subsistent base to their support.

The impact of land alienation was to take away resources and to lead to changes in the collective management of those resources, that is, changes in the relationships of people based upon those collective strategies. This meant changes in land tenure and land usage and the alteration of the

social roles associated with them, so that within-group and between-group, and within-household and between-household, roles and relations were changed.

The impact of commercialization was to have a similar effect in areas not touched by land alienation, and to deepen the consequences of those effects in areas that were. Land commercialization altered the older patterns of land allocation and the social relations between people. Land became "alienated" from food production and put into cash crops. Sex roles in land use were altered as men took over the cultivation of cash crops whereas before they had been in many cases the ones to clear land and prepare it for cultivation by the women. New work categories were thus created and the hiring of labor was introduced. There was a move towards more individual family-household initiative.

The impact of intervention and the spread of services was to begin a process of intervention into family-household decisions at all levels from health and education to intervention in the production systems of the family.

The results of the processes of change outlined above was to dislocate many indigenous communities, depriving them of resources and disrupting their domestic economies. Change did not affect all African family-household groups in the same way at the same time or through the same agents,

but the effects of the changes brought about by colonialism were felt in virtually all African societies in the course of the last century. It is the common impacts of such changes that form the empirical basis for the research model.

Contemporary Frameworks of Decision Making

Certain important features of present day African family-household economic organization have their origins in this particular historical process by which traditional indigenous African communities were brought into contact with the modern world economy. Conflicts between indigenous and colonial interests are today reflected in some of the conflicts between local and national interests. The separation of many family-households into rural and urban components and the present semi-subsistence base to most African domestic economies are significant features which persist into the present and which represent the socio-economic framework of contemporary family household decision making. These factors will now be examined under four headings; the persistence of a land base in most family-household economies, the increasing need for cash, the evolution of complex livelihood systems, and the situation of the household in national economies which are not functionally integrated.

The Land Base

The persistence of a land base is for sound economic reasons although African attachment to the land is very strong for other cultural reasons also. Most families in Africa today still retain some land in their economy, although many factors have been involved in changing the nature of land holdings and the pattern of land use with the consequence that actual parcels of land have seen different ownership, rights, and usage.¹³ Some families still live and work on land to which they have long held customary user rights as well as land which is borrowed, rented, or even purchased, but others may have been dispossessed of these lands long since and now farm land which they rent or have bought, or have been granted in government schemes. Land is still the ultimate security.¹⁴ Increasingly some

¹³The land ownership question is often complicated. For instance the present situation in Kenya is that:
...Kenya's agricultural sector comprises various land tenure forms ranging through individual freehold and various traditional tenure systems to group held freehold title (on some ranches and large farms) and highly regulated tenancies such as the Mwea and Perkerra irrigation schemes (Hunt, 1978).

In many countries the government has declared land to belong to the nation but in practice a similar mix of tenure systems exists at local levels.

¹⁴Food is not always available for purchase. Food distribution systems are weak in many parts of Africa, and there are frequently to be found temporary or seasonal shortages. In some places there are chronic shortages of food supplies.

family members will work away from the family base, in towns or other countries, even overseas, but absent members usually send some help in the form of remittances to maintain the basic landholding part of the family-household economy.¹⁵ Even urban families try to acquire cultivation rights on plots of land within the city or on the periphery, for urban-rural distinctions are less sharp in many parts of Africa, and town families often have livelihood systems which are little different from rural families, based on very similar organization and technology.¹⁶

¹⁵The need to keep a stake in family land is one reason for the continuing ties as well as the recognized obligations to other members. Remittances, however, vary in regularity and in amount, and in their significance to the family-household economy (Table 15, Ch. 1: 51).

Taylor (1979: 17) writes of the situation in Kenya: Kinship based economic remittances and return and circular migration are important processes...it is clear that substantial amounts of capital generated in urban areas (possibly as high as 25% of total wages for example) find their way into rural areas by these routes.

Similar findings are reported for Mossi households in Upper Volta (O.R.S.T.O.M., 1975).

¹⁶In the indigenous societies of Africa inheritance and borrowing were the two means by which land for cultivation was acquired, and both of these processes were flexible to allow for the changing needs of families and clans. Certain clear rights were usually enforced in the borrowing, often the giving of grain to recognize the status of borrower and lender, though this might not be required among members of the same lineage. This custom of land lending was drawn upon for a planned scheme in Ghana where the members of one tribe were settled on agricultural land belonging to another in accordance with the local traditions

The often close relations between urban and rural places that can be seen in Africa today, particularly near to the large towns and capital cities, is due to the continued need for land to farm. Thus, for example, Colson and Scudder describe the situation of a village called Mazulu, 50 miles from Kafue and 90 miles from Lusaka in Zambia. The village had been relocated after the building of the Kariba dam and found itself connected to the urban places by bus transport. The result was that the village developed urban foci in each of these two major towns, and people moved back and forth between the village and these urban places, where they found work and the chance to trade as well as the opportunities to buy goods and see friends, and which were described by the authors as being part of the same "social field." Wage labor and agriculture and the keeping of stock are all still important in the livelihoods of the people of Mazulu.

...there is little clear cut distinction between those in rural as opposed to urban occupations...consider for example, small traders and hawkers. Some prefer to live in the village where they buy up fish, chickens, small stock and cattle for retailing elsewhere ...(others)...are small businessmen who make a good income on the streets of Lusaka...but these all have

governing the relations with "stranger farmers," that is they would acknowledge the usufruct relationship with gifts of grain. Problems arose when the settlement seemed to become more permanent and the admitting tribe then demanded that they be placed in the care of one of their chiefs (de Sautoy, 1967).

substantial rectangular houses of sun dried brick in the village which they furnish with iron bed-steads and other urban purchases. Indeed, the same man often alternates between rural and urban occupations (Colson, E. and Scudder, T., 1975: 190-210).

The persistence of the land base is partly cause and partly effect of the fact that growing food crops or rearing animals is still an important household activity in African countries and that nearly all families depend on some home produced food supplies.

The Need for Cash

An increasing need for cash in most African family households today is not simply the result of changes in consumption patterns and the desire to obtain more goods such as bicycles and radios and the other trappings of the "modern" life. In some cases it comes from the need to buy some basic foodstuffs where home supplies are inadequate or where family labor is in short supply, and it is not possible to grow enough, or where land is unavailable, or soils become impoverished, or the rains fail or are late. Too often the traditional systems of security have broken down and the new security lies in having a cash resource, though this has many new risks attached to it. A number of field workers have commented on the fact that

some of the poorest families now buy a substantial part of their basic foods.¹⁷ It is interesting to note here that the herding families are sometimes better off in this respect for they have in their animals a ready source of cash, and this without the anxiety that the crop farmer has about storage and losses from pests. In Kenya there was some discussion recently about the problems with unofficial and official maize marketing; and the reasons given why farmers preferred the unofficial channels was not only that prices tended to be higher but that they could also spread their sales to fit in with their cash needs rather than with the timetable of the official markets.¹⁸

Changes in farming methods and the increased need for farm inputs of fertilizer and pesticides, as well as new

¹⁷See The Kenyan Marginal/Semi-Arid Lands Pre-Investment Inventory Report Number 1, 1978. Family-households in some areas spend nearly 60% of their cash income on food staples.

Delgado reports of farmers near Tenkodogo in Upper Volta that "...sample farmers are typically unwilling to rely upon the market for their supply of the food staple, millet" but he also notes that most families report that they have to buy two or three sacks of millet a year (Delgado, 1979).

¹⁸Maize marketing is restricted by permit but it is estimated that, for example, in 1977 "almost 100% of the maize and beans traded in Kitui District, was illegally supplied from both Meru and Embu Districts by illegal lorry traders" (Schmidt, 1977).

seeds which are not self-generating but have to be bought fresh each season, mean that farmers have an increasing need for cash if they are to benefit from the new methods. Lack of cash is a frequent cause of the failure of new "extension" methods.

Farm budgets drawn up by outside economists, who are more concerned with the economics of the crop than the economics of the farmer, are often unrealistic from the family point of view, and the cash generated in a scheme or the cash needed for the implementation of a plan is frequently underestimated.¹⁹ Desperate or poor farmers may sell fertilizers or other government provided inputs if cash is needed, or if the family thinks that using it for the payment of a child's school fees is a better investment.

¹⁹Budgets drawn up for high density settlement schemes in Kenya illustrate this:

The cash surplus amounts of £ 25, £ 40 and £ 70 stipulated in the target income are fixed too low. In a family of six persons with two adults and four children, £ 25 net cash surplus corresponds to Shs. 125/- per adult head and Shs. 62/50 per child per year. This money must pay for clothing, supplementary foodstuffs, local tax and school fees for the children, as well as unexpected expenses for illness and possibly the support of other members of the family. Even the most modest needs can hardly be covered by these sums. We know, however, that in reality the families consist of not six people but of ten, twelve, or even more... Many farmers declare that the farmers in the reserves earn £ 25 cash with less work and that...they can plant what they want and sell it where they want (von Haugwitz, 1972: 70).

Finding cash to pay for education has long been an incentive for the selling of crops or cattle, for education has been seen as the passport to wealth and power, with better returns than re-investment in agriculture. Increased education for more people coupled with the lack of jobs for the school leavers has begun to undermine this attitude recently but education is still seen by most families as the key to advancement.

The most basic need for which cash is required is for the payment of taxes--"the charge for breathing" as one Mossi farmer in Upper Volta called it. This is also one of the oldest "needs" for it was the imposition of taxes which was used by the colonial governments to draw labor out of the indigenous communities and into the colonial economy. Whether British, French, German, Portugese, or any other colonial power, the policy was much the same--to induce the need to work and so recruit the labor force that was required to build the roads and the railways or work the farms for the settlers. (When this method failed to achieve the targets, forced labor was instituted.)

Many Africans still feel the reach of the national government mainly through the imposition of taxation, though for others there are numerous links to the wider national economy through the dues paid to marketing cooperatives or the loans from national banks and the repayments

of various forms of agricultural credit used to stimulate change at farm level.

Such is the legacy of bad feeling associated with colonial practices that farmers still fear the implications of financial ties to national institutions, aside from the real fear of assuming debt which are alarmingly high in comparison with small cash incomes and with the general shortage of cash in the system which makes it difficult to earn more very easily. A Mossi family getting less than 200 CFA francs for a 7-9 kilo bag of peanuts does not feel safe in assuming a five year debt of 15000 CFA francs to buy a plow and the animals for traction (Mesnil, 1970). One farmer describes it as "une corde attachee a un arbre. Va y mettre son cou qui veut!" (Mesnil, 1970) Suicide!

That there are increasing amounts of cash used and needed in most African families is, however, coming to be realized as the details of household budgets are studied and various rural surveys undertaken. It is through consumption patterns that these economies are being studied because it is generally difficult to get any real information about incomes, partly because of the fear of disclosure but also because the sources of income are often many and varied (See Appendix 4).

There is a fairly wide literature on this subject now. A particularly interesting survey was that done by Rald in

TABLE 19 (a)

CASH FLOW IN FARM-FAMILY-HOUSEHOLDS,
MACHAKOS AND KITUI, KENYA, 1974-75¹

CASH INCOME	Ksh.	Percent total receipts
Sales of crops, livestock, milk	1320	42%
Non-farm activities	611	19%
Paid employment	780	25%
Remittances from relatives	383	12%
Other gifts	59	2%
Total	3153	100%
CASH OUTLAY	Ksh.	
Food purchases	1224	39%
Clothing	334	11%
Labor costs	87	3%
Inputs to crop, livestock	136	4%
Household expenses	161	5%
Miscellaneous	195	6%
Total	2151	68%

¹ Represents use of cash surplus not total income which would include subsistence.

SOURCE: Integrated Rural Survey 1, Chapter 8, Kenya

TABLE 19 (b)

CASH FLOW IN A TANZANIAN FAMILY-HOUSEHOLD
 (MIDDLE -INCOME- "WELL-OFF PART-TIME FARMER,"
 RALD, 1975, 10 PERSONS INCLUDING 6 ADULTS), 1969¹

CASH INCOME	T. shs.
CROP SALES (COFFEE)	1050.00
CROP SALES (BANANAS)	252.00
TRADING	28.00
POMBE (BEER)	64.00
MISC.	
TOTAL	1394.00
CASH OUTLAYS	
FARM INPUTS/INC. HIRED LABOR/ HOUSEHOLD INVESTMENT	556.80
FOOD (MEAT, FISH, MAIZE FLOUR, SALT, SUGAR, SPICES)	214.40
DURABLES (HOUSEHOLD GOODS, BICYCLE)	167.50
CLOTHES/INC. SCHOOL UNIFORM	151.05
MISC./TOBACCO, SOAP, BUS FARES, DOCTOR, GIFTS, TAX, RELIGIOUS OFFERINGS	161.70
DRINKS/BEER, TEA	68.70
SCHOOL FEES	
OTHER	9.80
TOTAL	1339.95

SOURCE: Rald, 1975

T. shs. 7 = US\$1

¹NOTE: This is a sample household from a survey by Rald in the Bukoba Region. The original material has been used but presented in a different form for comparison with other examples in Table 20. This represents use of cash surplus not total income which would include subsistence.

TABLE 19 (c)

CASH FLOW IN A BOTSWANA FAMILY-HOUSEHOLD
(MIDDLE-INCOME, 14 PERSONS INCLUDING 6 ADULTS), 1974-75¹

CASH INCOME	RAND
CROP SALES (30 BAGS OF MAIZE)	108
CROP SALES (12 BAGS OF BEANS)	89
CROP SALES (51 BAGS OF SORGHUM)	153
LIVESTOCK (1 COW)	100
LIVESTOCK (2 SHEEPSKINS)	0.50
EMPLOYMENT (INC. REMITTANCES)	216
BEER MAKING (NET PROFIT)	36
TRADING	12
GIFTS	8.19
TOTAL	622.69
CASH OUTLAYS	
FARM INPUTS/SEED/WAGES	13.70
FOOD PURCHASES (SUGAR, SALT, TEA, TINNED FISH, OIL, MEAT)	318.00
CLOTHING	168.00
SCHOOL FEES AND UNIFORMS (2 CHILDREN)	14.00
TAX	12.00
BEER INGREDIENTS	12.00
DURABLES (BUCKET, BLANKET, KNIVES)	9.00
MISC. (TOBACCO, SOAP, DOCTOR'S FEES ETC.)	8.00
TOTAL	590.70

SOURCE: The Rural Income Distribution Survey in Botswana, 1974/75, Government Printer, Gaborone.

R = US\$1.16

¹NOTE: This is a composite table based on information from the Survey. Cash represents approximately 50 percent of total income, the rest is in kind.

Bukoba region of Tanzania in which he looked at the consumption patterns of different kinds of households, according to income levels crudely measured (Table 19b). Recent surveys in Kenya and Botswana provide useful comparative data (Table 19a, 19c).

Cash is not an extra in the livelihood systems of even the poorer African families. It is not a luxury, something added on and used for discretionary wants. It is an integral part of the family economic system.

Multiple Strategies

The combined effect of the persistence of land in the economy and the increasing need to earn cash has been the evolution of complex and multiple strategies in family livelihood systems. Regular, full time, wage employment is scarce, (ILO, 1972, 1973, 1976) and few families can depend on it for their entire support, while cash earning opportunities in farming and herding are often limited, and the returns from self-employment in trading and local manufacture are small scale due to restricted purchasing power. As a result families maintain themselves with a great mix of activities, and there is a lot of part-time employment, multiple job holding, seasonal changes in occupation and migration by some family members to towns and cities, even abroad and overseas, to find work. The

TABLE 20

INTERNAL MIGRATION - AN INDICATOR OF URBAN-RURAL LINKAGES IN
DOMESTIC ECONOMIES SELECTED AFRICAN COUNTRIES

COUNTRY	TOTAL POP. MILLIONS	INTERNAL TOTAL, '000's	MIGRATION %	SOURCE
Sudan	17 (labor force 7 million)	1,000	14% of workers 6.5% of population	ILO Sudan ¹ 1976
Kenya		400	1/3 rural male household heads	ILO 1972
Upper Volta	6.0	14 per yr.	0.2%	World Bank ² 1979 W.P. #315
Senegal	4.4	20 per yr.	0.5%	World Bank '79 ³ W.P. #315
Tanzania	12.0	1,000	8½%	Claeson & Egero, 1972
Zambia				

1. Includes movement of workers to irrigated areas on a seasonal basis.
2. This is in contrast to the very high percentage of workers outside the country. Almost all of the urban population of Upper Volta (500,000) have links with rural areas (Skinner 1974).
3. The note for Upper Volta applies here also. Urban population in Senegal is 800,000.

nature and strength of economic linkages within individual family-households shows considerable variation, so it is possible to talk of family livelihood strategies in a collective sense for many and in a more limited sense for others (Table 20).

This is not to suggest that traditional collective family structures persist unchanged in Africa, and that cash earned outside the traditional milieu is simply used to maintain them. Only in really remote regions are the old forms of family organization maintained to any effective degree, but what does remain is some form of cohesion in most African family groups that is related to the maintenance of a family land base for at least the partial subsistence of some members and the security of others.

Sometimes the maintenance is voluntary but in other cases duty is enforced by more than social pressure when a marabout or an emissary from the head of a village may spend several weeks or months in France, visiting the hostels where migrants from his village are grouped (Bradley, 1977). In some cases family solidarity and village solidarity remain strong but in others the links are fewer and weaker.

In any one family-household the economic resource network can be, and often is, extremely complicated and interwoven. So, for instance, the remittances from migrants

earnings might be used to hire extra labor on the family farm, or they might be used to buy food--in some cases basic staples such as maize or millet; in other cases "extras" such as tea or coffee, tomato paste, tinned milk and sugar (Bradley, 1977; Skinner, 1965; Kohler, 1972). Money is also sent home to pay taxes and to improve dwellings--even in some areas to build mosques. In pastoral areas it will be used to buy new stock.

Family labor may be deployed in a multitude of different ways, in growing food, in growing cash crops, in tending animals, in local off-farm work, in local on-farm work for other families, in home processing of food for sale or the home processing of other saleable articles including charcoal, in handicrafts, in raising chickens for meat and eggs and in the selling of surplus food crops and in other forms of small trading, and of course in wage employment in other parts of the country or abroad. Appendix 5 provides examples.

There are many descriptions given of these kinds of complex livelihood systems in the current development literature and in reports prepared for government offices. The term strategy certainly seems an appropriate one to apply to family-household economic management in these circumstances. In "traditional" strategies the emphasis

was largely, and in some regions it still is, on managing local natural resources but today families manage a much wider range of resources as they seek to secure an adequate mix of food and cash for their needs in countries where the home production of food is at least partly essential and where cash yielding employment is scarce.

Family-households in Non-integrated
National Economies

The spatial structure of the economies of African countries bears the impress of the inequalities of the colonial patterns of development (Morrill and Gould, 1963; Mabogunje, 1965; Goode, 1971, Kimani, 1972; Taylor, 1975). There are nodes of economic activity, cities, towns, and commercial farming regions that are linked to each other by roads and railways, sometimes over very long distances, but which leave many regions ill-served by any communications and remote from markets and services. Differentials of a very high order often exist within countries in respect of their access to markets for the sale of crops and animals, to government services, including the extension services for agriculture, to employment opportunity, to stores and outlets for merchandise, and to all types of opportunity. Some areas lack educational facilities and hospitals.

Many of the poorer areas have a high degree of local self-sufficiency in foodstuffs, being beyond the regular reach of any kind of imports. Trucks may bring in (warm) coca cola occasionally, packets of biscuits, tins of fruit, tomato paste, and condensed milk, or small packets of sugar, coffee, and tea, but for all the essentials the local population must depend on their own grain stores, small plots of onions and other vegetables, and fresh killed goats or chickens, and sheep or cattle slaughtered and sold in village markets early in the day. This local autonomy can be both a blessing, when it reduces the degree of dependence on a weakly developed commercial system of distribution, but it can also be a source of danger when local rains fail, as happened recently in the Sahelian droughts of 1972-77.

While family-households and village communities that lie beyond access to passable roads are obviously linked into regional and to national economies more weakly than those which are found nearer to the centers of economic activity, it is a mistake to think of such communities as being "traditional" and outside the monetary economy. It is also to misunderstand how much change has already taken place in Africa. Even the remotest region is often tied into the wider economic structures now through the activities of migrant workers, altering the resources of the

households, the work organization of the group, and the relations of people with each other. The migration of mostly male family members to find paid work leads to a large sex imbalance in many regions and to labor difficulties in farming. Remaining family-household members are often able to maintain the land to produce only a small amount of subsistence crops for themselves and are unable to take advantage of any extension services to produce cash crops for extra income. In a study of poorer farming units in the Machakos area of Kenya it was found that many family groups lacked both the labor and the cash to hire labor that would allow them to accept the government's three acre package of improvements (Hunt, 1978).

The value of remittances made by absent workers from these areas does not always compensate for this loss of labor, though there are many instances where cash is sent back specifically to hire replacement labor. Sometimes the money is sent to hire replacements in respect of particular tasks that were the responsibility of the absent member. Men working away at peat digging in Rwanda-Burundi fulfill their home duties in this fashion.

The need for cash as part of the family-household "income" is now such a necessity that the household may continue to retain the pattern of economic migration that developed under the different circumstances of colonial

times. Options to find paid employment are few and the known avenue to jobs then becomes accepted. The huge outflow of workers from the Mossi Plateau in Upper Volta to the Ivory Coast and to Ghana, the large migration streams from Botswana, Lesotho, Malawi and other countries to the mines in South Africa, and the overseas migration of many workers from the poorer Sahelian countries of West Africa to France, are all maintained now because of the difficulties in absorbing these workers into their home economies under the existing levels of economic development.²⁰

The lack of physical and functional integration of African national economies means that there exist certain constraints which are part of the general economic climate in which African family-households get their living and which account for the complexity of their economic arrangements. There are constraints to the buying of food, to the selling

²⁰ There is an enormous literature on migration which can be separated for convenience roughly into four categories. There are the major studies of nature and process which deal with the geography and the historical origins. Examples are Rouch, Jean, 1956, 1957, 1960; Skinner, 1965; Kuper, H., 1965; Raulin, H., 1969; Gallais, J., 1969; Mabogunje, 1970; Remy, 1973; Songre and Sawadogo, 1974; Amin, 1974; Caldwell, 1975; and Prothero and Kosinski, 1975. There are studies, more narrowly focussed on the economics of migration, such as those by Lewis, A., 1954; Eicher, C.K. 1970; Berg, E., 1965; Todaro and Harris, 1969; Gutkind, P., 1962; Singer, H., 1971. There are the empirical small scale studies such as those by Roussel, 1970; Johnson and White-law, 1974; and there are the government surveys such as that carried out by the governments of Ivory Coast, Upper Volta, Niger, Togo, Ghana, and Dahomey (now Benin) in 1961, and one currently underway in Upper Volta.

of crops or of livestock that could bring a cash income, and everywhere constraints to paid employment that would allow a household to depend upon it for total support.

Summary

The decision making frameworks in which African family-households manage their resources and make their living are now those of the new national independent nations, and to a greater or lesser extent they are affected by this fact, either directly where governments intervene into their economic systems or indirectly through the ways in which the national and international economies operate. The next chapter deals with the theoretical foundations for attempting to understand the economic organization of the household and its relations with the outside economy.

CHAPTER 3

THEORETICAL FOUNDATIONS FOR A RESEARCH MODEL

It was explained in Chapter 1 that a major result of the processes of change in Africa and the increasing integration of Africans into the world economy has been the emergence of the individual family-household as an important seat of decision making, more important than the larger kin or descent groups and with fewer economic ties to these larger groups in many cases. Where important linkages among family-households and communities survive there seems to be less involvement now at the level of everyday living and the importance of such linkages lies in the rights to resources and responsibilities for certain types of activity. Although, the African family-household is neither self-sufficient nor self-contained, it can be identified as a separate entity and it becomes theoretically possible to examine it as a distinct economic organization. Few organizations are independent of external inputs.

The African family-household differs in substantial ways from such households in the industrialized countries, but the basic hypothesis that economic behavior can be

analyzed in terms of the roles and relationships of its members and the ways in which they allocate time and resources to different functions and activities within the household and outside it, is equally relevant.

Though varied in composition and in domestic function, the household is, almost everywhere, the base unit for data collection in census counts and surveys. Precise definitions are difficult. Researchers often seize on the central fact of a "shared pot" or "common purse," while the census bureaus give a variety of more utilitarian and operational definitions as guidelines. Sometimes it is necessary to limit the unit to the physical or geographical unit even though it is known that the economic unit is not coincident with it. At this level many consider the term self-explanatory and provide no further definition for their work. Devoid of its family and cultural context the household can be defined as the basic income pooling group or work and consumption unit (Wallerstein, 1979). For a research model this is not sufficient and the identification of the unit is critical.

The perspective taken in this study is a systems perspective. The African family-household is defined as an interdependent economic group whose domestic organization is an open system, subject to change by the operation of both internal and external factors. Its members are

a localized sub-set of the larger family group and its boundaries can be practically defined according to the social and economic inputs and outputs. What is the effective unit in one place may be of a different size, form, and composition from that in another place. It is the job of the researcher to define what is the relevant unit in a particular case, and for this the definition need not be any more exact.

As an economic system, the African family-household is seen to be a patterned and interconnected whole rather than a rigidly ordered unit. The organization is not fixed, nor is it always located in a permanent place. Although a general commitment of the members to each other is fundamental to the existence of the group as a household, this does not preclude internal conflict and competition. Decisions are not usually made by a single resource use manager but in relation to divisions of responsibilities and assets. Generally speaking it can be said that domestic functions are those associated with the basic provisions of food and shelter and the early care and teaching of children, and that the rights and responsibilities that accompany these, often involving a sexual and generational division of labor, are what bind together the members of the family-household.

This chapter deals with some of the theories that are available to explain how the family-household functions as an organization and how the economic behavior of members can be understood. Systems concepts and the behavioral theories of decision making in organizations are discussed. Economic theory is discussed in relation to the household and limitations on the proposed analogy between the household and the firm as used in the sub-field of "family economics" (alternatively referred to as "the new home economics") are discussed. The theory of the household production function as used in this sub-field is explained in relation to the allocation of time and resources. The important concept of the overlap of decisions about production and consumption, on which this theory is based, is emphasized and then taken further to develop a more broadly based concept of overlapping decision making fields which provides an important part of the dynamic for the research model set out in the next chapter.

In this study the relationship between social and economic factors is seen as a transactive one in which social relations may determine economic relationships but in which economic relationships may also determine social relationships; while a change in one may presage a change in the other, possibly feeding back to produce further changes.

Systems Approach: Basic Concepts

The notion of systems is a key concept in scientific research. There are principles that are valid for systems in general, whatever the nature of their component elements and the relations or forces among them. Systems analysis is based on the application of these principles and on the theory that the whole can only be understood in terms of the relations of the parts, and not through the study of the parts as isolates (Weaver, 1948, von Bertalanffy, 1956).

A system is a set of interrelated elements, an entity of "organized complexity" (Weaver, 1948). There are bio-physical systems, mechanical systems, social systems, information systems, and value systems. There are also hybrid systems, in which organic and inorganic elements are involved. One of the most important distinctions is between closed systems and open systems. Closed systems are isolated from their environment and operate on different principles from open systems. In any closed system, the final state is unequivocally determined by the initial conditions. An open system is defined as a system in exchange with its environment; the final state of an open system may be reached from different initial states and in different ways or processes. This principle is called the principle of equifinality and is of particular importance in relation

to social systems. An open system is defined by the strength of the dynamic interactions of its components. Closely related elements belong in the same system.

Important concepts are those of a hierarchical order of systems (Boulding, 1966), system boundaries, the systematic process of input, throughput, transformation, and output, with its fundamental corollary of feedback and regulatory mechanisms, and the concept of types of state (i.e., moving or steady state). Inputs can involve flows of matter, energy, information, or ideas, depending on the nature of the system.

The effects of change or of inputs into a system depends on whether the system is closed or open, and on whether the feedback is negative or positive. In closed systems negative feedback leads to homeostasis or a tendency towards an equilibrium state while positive feedback leads towards maximum entropy and breakdown. In open systems the state is less simply determined since, by definition, the system interacts with other systems, and the effect of change and input is less predictable. Both closed and open systems can be described by reference to these two types of state, however, and a disturbance in open systems can lead to either a re-establishment of a steady state or to system breakdown.

Systems can be analyzed in terms of these principles and this analysis can be done with a high degree of mathematical precision in some apposite cases by representing the systems as sets of differential equations. The same principles can be used, however, in the formulation of other approaches such as information theory, network theory, and decision theory, for instance.

Systems and Organizations

A systems approach is the foundation for the research model of the African family-household as an economic organization. It is viewed as a social system, which means that it is propelled by the decisions made by its members, singly and collectively, and is a goal oriented system.

Compared with other social systems of organization such as the firm, it is an informal organization, not set up by formalized agreement but having its genesis in the natural provisions made for family livelihood. Its members are not formally recruited to perform the economic roles in the organization, but these are often derived from the social roles of family life. Consequently, position in the family can be an important determining factor in explaining the economic roles of members and their transactions. An exception would be the case of hired workers. The nature of its origin, however, does not present theoretical

problems for the study of the family-household as an organization. The perspective has to be taken from the economic side, and social factors enter the model as explanatory variables.

Systems theory has been applied to the study of organizations, and their behavior and a body of information known as organization theory has been developed (Simon, 1956, 1957, 1958; Beckhard, 1969; Lawrence and Lorsch, 1969; Huse, 1975; Katz and Khan, 1978). Most of this work relies on the models introduced into economic thinking by Simon (Simon, 1957). These models address the question of how decisions are made in organizations. Behavioral theories explain the functioning of these sub-systems. Organizations are analyzed in terms of both their sub-systems and their external linkages, and this model is also appropriate for the family-household which is linked externally with larger social and economic systems, and contains within it interrelated sub-systems.

Sub-systems in the Research Model

Two major sub-systems are used as the basis for the research model and as a key to the analysis of the family-household as an economic organization. These are:

- (a) the sub-system of the members, in which the members are elements and the transactions among them represent the flows; and

- (b) the sub-system of activities in which activities are elements and the inputs and outputs of resources represent the flows.

The hypothesis is that resource use in African family-households can be examined in terms of these two sub-systems and the interrelations of them. Separated for the purposes of the model, the two sub-systems are linked by the management decisions made by the household members. The behavioral theories of decision making, concerned with the internal dynamics of the organization and with the notion of process and the subjective nature of all decision making, are accepted as the relevant theories for this research model.

Behaviorial Theories of Decision Making in Organizations

Simon dismissed the notion that organizations are monolithic entities with fixed and permanent decision making structures and single, objectively defined, goals (Simon, 1957). Instead, organizations were seen to operate through the decisions made by members according to the principles of transactional psychology. He searched for the empirical factors underlying the individual and group decision making which takes place in organizations.

Four key concepts are held to explain how decisions are made in an organization. These are:

- (a) the concept of interdependent members and sub-groups;
- (b) the concept that the decision making system will reflect the nature of the organization and the rules that govern it;
- (c) the concept of a decision making process, involving information search, uncertainty, risk, and limitations of the decision makers in terms of abilities, perceptions, aspirations, resulting in satisficing not maximizing behavior;
- (d) the concept of trade-offs and compromise, goals reached by resolution of conflict or consensus, and subject to change.

In Simon's behavioral model of organizations, the common utility function of the household and its conceptual equivalent, the profit maximizing goal of the firm, would each be special (and unlikely) cases.¹ These goals result from treating the organization as a single individual (consumer or entrepreneur) which is how they are treated in classical economic theory, and in these concepts the internal dynamic of the organization is blacked out (Galbraith, 1973). The

¹It was Simon, and later Cyert and March, who applied the theory of organizations in the behavioral revision of the theory of the firm. In the behavioral theory of the firm the internal decision making processes are deemed to affect the behavior of the whole, and the firm is seen not as an individual actor but as a complex organization. This theory, therefore, rejects the classical assumptions of profit maximization (Simon, H. Models of Man, John Wiley & Sons, New York, 1957; also Cyert and March, 1963).

model which Simon developed insisted that it is the internal dynamics which explain the process and the goals.

Decision Making Systems in the Family Household

Following Simon's theory, the nature of that system of decision making will reflect the nature of the organization itself and the rules that govern it, so that the social factors in family relationships and the nature of the unit as a combined production-consumption unit will be the underlying explanatory factors.² There is seldom one single operational goal in the family-household. In a study of family-households in West Africa Ancey identified no less than fourteen different goals in one household unit (Ancey, 1975). While this may be an unusually high number, it is clear that multiple and subjectively defined goals are more likely to characterize family-households than a single goal of common utility.

Decisions by household members involve:

- (a) decisions made by individuals on their own behalf (independent);
- (b) decisions made by individuals affecting others (interdependent);

²"Everywhere in the world there is a domestic economy made up of the interlocking tasks of the members of the household...where there is a division of tasks, there automatically comes into existence a relationship of dependence between the people who perform the tasks...The more complex the division of tasks the more complex must be the organization..." (Bohannon, 1966: 220).

- (c) decisions made by individuals on behalf of others (representative);
- (d) decisions made by groups (collective, which are either based on consensus, or resolution).

Decision Making Process: Bounded Rationality

Process, in this latter sense of the nature of rationality, is summed up by Simon in the term "bounded rationality," and it relies on evidence of actual as opposed to ideal economic behavior (Simon, 1957).

The concept has three important parts to it:

- (a) the fact that all alternatives are not necessarily known to the decision maker, and that information has to be searched;
- (b) the fact that choices are often made in a simple way by the sequential judging of alternatives rather than by evaluating a complete preference order;
- (c) the fact that satisficing is more characteristic than maximizing behavior.

This concept of rationality added the factor of internal constraints on the decision maker to the accepted factor of external constraints. It stresses the limitations on decision makers that are due to perceptions and to the effects of experience, as well as those that are part of human cognitive limitations.

The behavioral principles of decision making are especially useful in the analysis of empirical evidence, and in conditions where change and uncertainty are part of the decision makers environment. They have been applied in a number of such areas of study, including response to disasters and natural hazards, farmers' decision-making in conditions of uncertainty, decisions about migration, and the decisions that underlie patterns of resource use and agricultural and industrial location.³

It has been argued that decisions are arrived at in some situations more by the limitations of constraints than by the operation of a choice process, but if choice is viewed simply as an act, then even where the options are reduced to a simple binary decision, there still remains a decision to be made and it will be made with some implicit

³A useful summary of "groundbreaking" contributions is given by Alan Pred in Behavior and Location, 1967. He singles out the work of Torsten Hagerstrand on diffusion and migration, Kates study of flood plain land-use management in six U.S. countries, and Wolpert's research into the behavioral factors related to variation in agricultural productivity, and to the decision to migrate (Pred, 1967; Hagerstrand, 1953, 1957; Kates, 1962; Wolpert, 1964, 1965). More recent work includes the studies of response to floods, drought, hurricanes, and earthquakes (Burton, Kates and White, 1978; Mbithi and Wisner, 1974; Kates, 1965, 1971, 1973, 1975 b; White, 1974); research into the use of water resources in rural households in East Africa by White, Bradley, White, 1972; and research into the bases of farmers' decisions about planting times and crop choices, (Hankins, 1974; Heyer, 1968; Mbithi, 1977).

theory about the outcome.⁴

Both from the perspective of the nature of rational economic behavior and from the perspective of the model of decision making systems in organizations it is the behavioral model which best meets the needs of the research model set out in the next chapter. The models of the family-household which underlie conventional economic theory are unhelpful.

Economic Theory and the Household

In economic theory the household is an atom in the theory of demand and when economists talk about the household they are talking in most cases about it as a consumption unit (Lipsey and Steiner, 1969; Galbraith, 1973). This economic view is based on the assumption of a common utility function for the household group, and is in line with the role that households have in industrialized countries.⁵ They are essentially consumers of goods and

⁴See Torry, W.I., 1979 and the comments on his paper by O'Keefe and others in the same publication for a discussion of this topic.

⁵Schultz (1974) argues for the existence of a common utility function in which members integrate their individual preferences for the allocation of resources to production and consumption activities. In this view the family-household acts as a single unit and has a single operational goal of maximizing expected utility. In the same volume see Zvi Grilliches for critical comment.

services. Production in the family-household is represented most prominently by reproduction in this model. The family-household produces labor for the market. The firm is the chief producer of goods and services, not the household, and this is based on the norms of an industrialized society where the firm and the household are the two basic decision making units: the twin poles of production and consumption activity.⁶ Any production in the household, in this model, is a substitute for consumer spending. This is an important point as it is related to the use of the theories from the subfield of family economics.

The Sub-field of Family Economics⁷

Family economics is, at present, a developing field with a limited theoretical base and consists mainly of

⁶Schultz (1974) argues that the theory of the firm is a logical and analytically useful model for understanding the economics of the "family" which he equates with household. The household, in this case would behave as the rational actor, "economic man," possessed of perfect rationality and complete information for the purposes of the theory.

⁷The term "household" and "family" are frequently confused. This is partly because the household is usually a family-household. However, a household does not have to be a family to be a household, while a family is a kinship group and is not necessarily an economic unit. A full explanation is given in Chapter 1. A family-household is a household where the members are joined by kinship ties. "Home Economics" is another term used for this sub-field. "Household Economics" would be more accurate.

some connected lines of research. The focus is strongly towards understanding the fertility behavior of the "family unit" rather than economic behavior in general, though other models are being developed. The premise behind the research on fertility behavior is that fertility can be determined by choice and is, therefore, within the scope of economic analysis.

An important theoretical development which laid the basis for this work on fertility choices and household economic behavior was the extension of economic theory to include non-market decisions and the bringing of these into a "unified choice theoretic framework." This is the framework which encompasses the economic behavior of the family-household.

Interest has been strongly focused on the effects of increases in the market value of the mother's time on the entry of women into the labor force in industrialized countries. This has been prompted by empirical evidence of a continuing rise in the market value of human time generally and of women's time in particular in the industrialized world. Trade-offs between time and money costs and between market and non-market activities are seen as important determinants of decisions made in the family-

household.⁸ These decisions, of course, include more than decisions about fertility or reproduction, and extend to all decisions about in-household production. The concept of trade-offs can be extended to a theory of resource allocation in the family-household.

Four related concepts form the theoretical basis for family economics as presently construed. These are:

- (a) the concept of the household or "family economic unit" as an important unit of decision making;
- (b) the concept of the economic value of human time;
- (c) the concept of "human capital" or the concept that investment in education and training can increase the value of a person's time;
- (d) the concept that production and consumption functions in the household are interdependent, and that consequently within-household choices are made about production, consumption, and consumer spending, in respect of time and money costs and market and non-market activity, through trade-offs.

Together these concepts provide an analytical key to thinking about the effects of the internal dynamics of the family-household on labor supply and consumer demand. This

⁸See Becker (1964, and 1965) for a discussion of the rise in the price of human time and the related concept of human capital. See Kutznets (1973) for empirical evidence of the rise in the price of human time, and for the theory that this trend is significant in the explanation of economic growth and in the explanation of labor supply.

is an important departure from the conventional view of the household in which the internal workings of the household are irrelevant to economic theory.

The Theory of Allocative Decisions;
the Household Production Function

The analytical framework which utilizes these four important concepts is called the theory of the household production function.⁹ It is essentially a theory about the allocative decisions made by the household. The household production function represents the amount of production that takes place within a household as the resolution of choices made between time and money costs and between the in-household and external uses of time and money. The whole theory rests upon the recognition of the inter-dependence of decisions about production and consumption, including therefore, consumer spending.

⁹The household production function was formulated by Becker in 1965, as a theory of the allocation of time in household production activities. The concept was not entirely new, having been used by Reid in 1934, and by Mincer in 1962 in discussions about the allocation of time between the "home" and the "market." It has been used since by Schultz (1969, 1974); Nerlove and Schultz (1970); Sanderson and Willis (1971).

The original formulation of the model of the household production function was made within the context of normative theory in economics. The household was treated as analogous with the firm, behaving as a single actor with a single maximizing goal and complete information. The former is described as a common utility function.

The household production function, therefore, is the conceptual equivalent of the firm's production function. A production function is simply the relationship between inputs and outputs in terms of the quantity of inputs (labor, materials or resources and money) needed to produce a given quantity of output.

The output, in the case of the household, can be children, food, other goods for subsistence and other goods for sale or use. Even intangibles can theoretically be included. Inputs, in the case of the household, are labor time, natural resources or non-purchased goods, market purchased goods and money. Again there is no theoretical difficulty in including intangibles such as effort, ability, or even affection, except those problems associated with measurement.

In using this analogy, production in the household is made to represent the trade-offs between:

- (a) labor time and money saved which would otherwise be spent in the purchase of equivalent goods and services, and, or,

- (b) time used in the household and time used outside the household earning money to pay for the equivalent goods and services

In this model, therefore, time and money costs can be related directly to the in-household and non-household uses of the members' time in the various work activities and consumption choices. Any form of production in the household is considered as a substitute for consumer spending.

By formulating the household production function in these terms, conventional economics retains the concept of the household as a supplier of labor to the market and a unit of consumer activity, which is essentially its function in the industrialized world where wage labor is the main source of income.

As a contribution to theories of labor supply and consumer spending, the household production function is a useful concept. It relates the internal workings of the household to the external economic environment of the household decision making system, albeit in a static equilibrium frame.

However, it is a deductive model based on strong presumptions of ideally rational behavior, and for this the empirical factors in the household decision making system are unimportant and unnecessary, or would be considered as deviations from the norm. It goes no further,

consequently, into the internal dynamics of the household, so that multiple, subjective, and changing goals cannot be accommodated, nor the complexities of either the system or its economic environment.

Because it is based on normative economic theory, and because it is also based on the norms of an industrialized society and a simple model of a nuclear family-household, the theory of the household production function is inadequate as stated both for the development of a descriptive micro model of family-household economic behavior and for the African circumstance where households do not depend only on wage labor for their income.

The fundamental concept on which the theory of the household production function is built, however, is basic for the understanding of household economic behavior--that is, the interdependence of the production and consumption decisions and activities in the household. Recognition of this important concept is the cornerstone of the model described in this monograph. Allocative behavior, resting on this concept, is developed further as a theory of overlapping decision making fields in which the rationale for decisions taken in respect of one field is compromised by the rationale for decisions taken in the others. Used in its essential form as a theory of resource allocation, the

household production function has more power for the purposes of micro level analysis than it does in analogy with the firm.

The model in Chapter 4, therefore, takes the original concept of overlap between production and consumption decisions in the family-household, uses the basic idea, and expands it to fit the situation where the production function is larger, as it is in African family-households that produce not only substantial amounts of food for their own consumption but also produce things for sale. Production plays a much larger part in the functioning of the African family-household. There is a large amount of subsistence production in many households and some element of it in most, while commercial production can range from the production of export crops on smallholder family farms to the selling of local food surpluses, and from large scale trading and business enterprises to petty street trading and local market trade.

In conventional models of the African family-household, this factor of in-household production is either seen as separate from consumption as in the case of commercial output, or equivalent to consumption as in the case of subsistence output. In the model in Chapter 4 the factor of in-household production is seen as being interrelated with both the decisions made about internal con-

sumption and those made about consumer spending. It is this interdependence that is held to be the key to analyzing how the total production-consumption system operates in the family-household. While this is theoretically the same as in the case of the original explanation of the household production function, in the case of African family-households the relationships are more complex.

The concept of an expanded household production function is, therefore, developed to take in these differences where a household depends neither on subsistence alone nor on wage labor alone, and where trade-offs in time and money costs can occur within the household as well as between the household and the external economy.

Decision Making Fields

The basic idea of overlapping decision-making fields is demonstrated in the diagram (Fig. 3). The total field of consumption decisions is crossed by two movable boundaries, shown by dotted lines, which represent the leading edges of the fields of decisions, one to buy from outside the household (consumer spending), and the other to produce in the household (household production). These fields of decision making overlap, and the resolution of the decisions is the household production function. By moving the boundary of the latter to the far right in the diagram, absorbing the whole field of consumption decisions, the

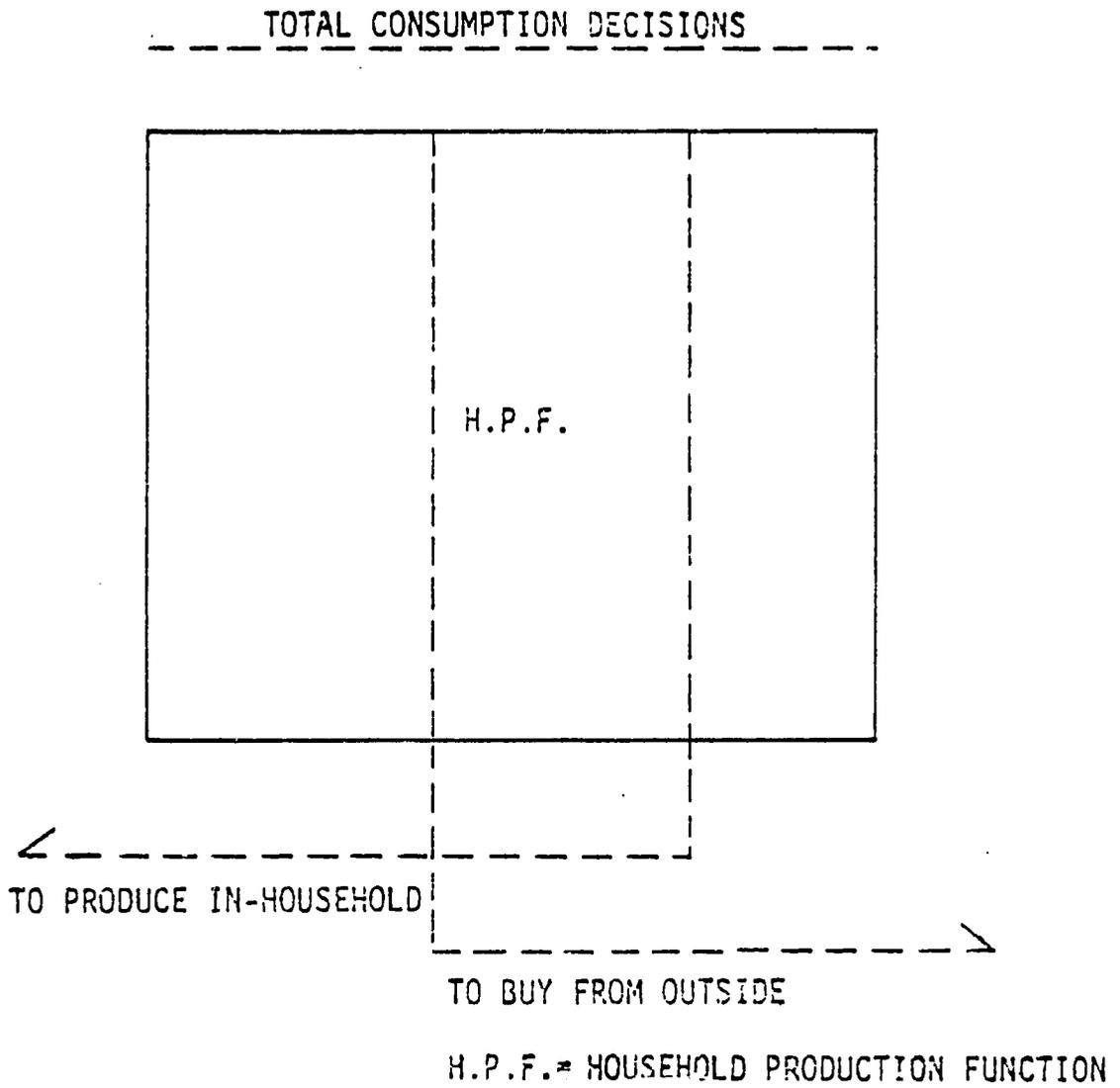


FIGURE 3: HOUSEHOLD PRODUCTION FUNCTION

case of pure subsistence (theoretical) is described. By retracting it to the far left, the case of total dependence on wage labor and the satisfaction of consumer needs by purchase is demonstrated. The position for most African family-households lies somewhere in between these two extremes. In the case of the expanded household production function, production decisions are further divided into production for use and production for sale decisions. This provides an important part of the framework for thinking in the research model.

The theory of allocative decisions contained in the household production function model does not depend for its ultimate validity on the assumptions of normative economics. While not depending on ideal rationality, however, it does depend upon assumptions of rationality in economic behavior. If household behavior is erratic and irrational there is nothing to be gained from the use of this theory. If household behavior is culturally conforming, it would have to be analyzed in terms of cultural patterns, and household decision making would be unimportant.

Decision Making Theory and the
Nature of Rational Behavior

Decision making theory is concerned with the processes of decision making and the nature of rational behavior.

It is concerned both with how individuals, singly and collectively, make decisions, and with how decision making systems in organizations operate. Much of the work has been done by economists, psychologists, and organization theorists, but the theoretical concepts have been elaborated and used more broadly in many other fields, including geography and social anthropology.¹⁰

The basic components of the decision making process are common to all models of economic behavior. The process is analyzed in terms of goals, aspirations and expectations, perceived alternatives, information fields, and constraints on the decision makers. Many models have been developed to explain why people make the decisions they do.

The differences in the models mostly lie with the various interpretations of what constitutes rational behavior. The normative model is based on the premise that decision makers always maximize their expected utility. They conform to the model of economic man who is not only

¹⁰See Slovic P., H. Kunreuther and G. White (1974) for a review of decision processes, rationality and adjustment to natural hazards and Barth, F., (1963) The Role of Entrepreneur in Social Change in Northern Norway (1967, 1968) Economic Spheres in Darfur, 1968 Capital, Investment and the Social Structure of a Pastoral Nomad Group in South Persia. Salisbury, R. (1976) Transactions or Transactors? an Economic Anthropologist's View and Kapferer, B. (1976) Transaction and Meaning.

perfect in his reasoning ability but also can accurately perceive all his alternative courses of action. Rational behavior in this model is ideal behavior.

Descriptive theory, on the other hand, does not accept that decision makers always maximize their expected utility. In descriptive theory, therefore, there is no simple pay-off matrix or careful calculation of probability, but a search process to find satisfactory rather than optimal solutions. How this process operates, consequently, is what constitutes descriptive theories of decision making.

Rational behavior, in terms of its definition by descriptive theorists, means something other than ideally rational. It means to be rational in a realistic sense, not following the rules of probability theory, but making conscious estimates of the probability of outcomes in relation to a model of the real world in which the complexities of it have been simplified by the decision maker to a manageable frame within which decisions are taken. This is accepted as rational behavior by those making empirical observations of the way decisions are made, and it is confirmed by psychologists as being consistent with human cognitive abilities. An unnecessary qualification is sometimes put upon this definition of rationality, that it

should mean behavior that is coherent and consistent in relation to any particular frame of reference, while observations show that consistency can be irrational if changes in the perception of alternatives, errors of judgment, and shifts in preferences are ignored.¹¹ Inconsistent behavior is not, therefore, always irrational behavior. For a more useful definition of rational, the element of change must also be incorporated. Basically, if behavior is purposive and conscious, it can be analyzed as rational behavior since its purposes and the paths of reasoning towards the achievement of those purposes can be examined. Irrational behavior is instinctive, reflexive, or aberrant, and has to be analyzed in a different framework and mode.¹²

Bounded Rationality

The model of bounded rationality which admits limitations on the powers of reasoning as well as on the information available to decision makers, and can accommodate

¹¹See Tversky and Kahneman, 1981 "The framing of decisions and the psychology of choice" (Science V. 241 No. 4481) for a recent review.

¹²The biological causes of human behavior are one concern of sociobiology. For a recent review see papers in Barlow, G.W. and Silverberg J. (ed.) 1980; Sociobiology, beyond nature/nurture? and Gregory M.S., A. Silvers and D. Sulch, 1978 Sociobiology and human nature. See also Wilson, E., 1975 Sociobiology: The New Synthesis.

change, is the model accepted as the model of economic behavior having the most explanatory power in terms of the research model presented here. This model which was introduced into economic thinking by Simon, and applied by Cyert and March to decision making in the firm, has been discussed earlier in this chapter in relation to decision making systems in organizations, (Simon, 1957; Cyert and March, 1963). It is discussed here in relation to its model of rationality and the nature of this in terms of economic behavior. This issue of the nature of rationality has an important bearing on the research model because the rationality of African decision makers has often been called in question.

Decision Making in Africa

The fact that many Africans live in small communities where there is still a large amount of home production of food for subsistence, and the fact that many of these communities differ from each other economically in ways which seem obviously related to cultural and ecological factors, combine to lead people to believe, in some cases, that Africans are so culture-bound that they do not exhibit rational economic behavior. Their behavior has been described as unresponsive to market incentives and culturally conforming.

Bohannon and Dalton distinguished three types of community in Africa based upon Polanyi's three forms of integration; reciprocity, redistribution, and market exchange. The three types of community were: communities with little or no market exchange; communities with a peripheral involvement in the market but where the market form of exchange is not dominant; and communities dominated by the market as the chief mode of transaction (Bohannon and Dalton, 1965).¹³ They suggested that in the case of the first two types, there exist multi-centric economies with different transactional spheres, and this being the case, it was argued that economic theory could not usefully be applied to the study of such communities. At best it could only be applied to the transactional sphere which is characterized by market exchange.

If this argument had any validity, it is largely irrelevant now because there are fewer and fewer communities in Africa today which are not affected by market forces, and the market impinges on all economic activities. It is not restricted to a separate sphere and there are

¹³In putting forward these ideas Dalton built on the work of Polanyi (Polanyi K. et al. 1957 Trade and Market in the Early Empires).

many ways in which goods and services produced in one sphere (however defined) can be converted into those of another (Barth, 1967). Even the most remote communities are often tied into the global economy through workers living abroad.

Since local communities do not constitute isolated economic entities neither are Africans contained either physically, economically, nor culturally in "traditional" societies.

The recognition of these facts and the effects of change upon African communities, has led to some reappraisal of the nature of decision making in relation to resource use in particular by African farm families and herders. If socially and culturally determined economic behavior can be argued for as the norm for "traditional folk" societies, it can less easily be demonstrated for people who are undergoing profound changes in their lives and circumstances.¹⁴ In these cases it is more interesting and more useful to think in terms of weighing the influence of cultural factors on individual and group decision making, where social conformity is not dominant and where

¹⁴See for example Schultz 1966; Horowitz, 1976, 1979; Cleave 1977; Swift 1978; Norman 1980; Mbithi 1977; and report of a Purdue workshop 1979.

changing circumstances produce new options.

There is a growing acknowledgement that Africans do behave in an economically rational manner, in the sense that they make decisions and order priorities purposively and consciously, though what constitutes a rational objective may not always add up to maximizing behavior from an external perspective. In other words, they exhibit economic behavior which is essentially similar to the nature of rational economic behavior as described by Simon and the behaviorist school of thought. In this model, culture becomes one of the history dependent experience factors that are counted as internal constraints upon the decision maker, and such internal constraints are held to be part of the explanation for all decision making and not particular to Africans or other third world peoples.

Rational economic behavior as summed up in the term "bounded rationality" is therefore behavior which is not ideally rational but is intendedly rational. It can include elements of socially determined or habitual behavior consciously applied, but it is also distinguished from totally conforming habitual behavior. Because this model deals with the empirical aspects of economic behavior it is central to the research design of a descriptive micro model of the African family-household.

Conclusion

The research model set out in the following chapter draws upon systems theory for its basic conception. Concepts from the sub-field of family economics and from behavioral theories of decision making are used as a framework for the understanding of economic behavior in African family-households.

The economic organization of the family-household is analyzed in terms of the sub-system of the members which is related to the sub-system of activities through a consideration of the ways in which decisions about production and consumption overlap.

The systems concept of input - transformation - and output provides the conceptual base for understanding the investment flows of time and other resources to production and consumption directly within the family-household, or by internal transfer from one to another, or by external transfer through conversion to different forms outside the household. Re-investment and re-allocation are part of this system, and the flows are accomplished by trade, barter, gift giving and forced transfers, or tax and tribute. The flows can conceptually include information and other non-material resources.

Like all economic organizations, the African family-household is a system in which there is a decision making

pattern and a process, so multiple goals, internal conflict and consensus, and change are all a part of that process. Resource allocation can be explained in these terms, and through the understanding of how allocative decisions are made in the family-household in respect of overlapping decision making fields and the trade-offs that have to be made among these. The concept of overlapping decision making fields is derived from theories in family economics that underlie the model of the household production function. The model itself is not relevant in its stated form for the case of African family-households but it is modified for use in the research model to accommodate the important differences between the family-households in Africa and those in industrialized countries. The conceptual base of the household production function has wider and more useful implications for resource use than the narrow focus of the function as described in family economics.

CHAPTER 4

THE AFRICAN FAMILY-HOUSEHOLD: A BEHAVIORAL MODEL

A systems model of the African family-household as an economic organization and decision making unit, based on the concepts and theories associated with the behaviorist school of thought, is presented in this chapter. The purpose of the model is to provide a framework for thinking and a research methodology for examining the factors behind household decisions.

In line with the geographer's point of view, the primary interest lies in decisions related to the use of resources, and this includes human resources. The questions that prompt the thinking behind the model are: Who makes the decisions? What are those decisions about? How are household decisions made? In this way it is hoped that the logic of resource use and the livelihood strategies of household members may be understood.

The central argument holds that it is the family-household which is the key decision making unit in Africa today, more significant in both social and economic terms, than either larger kin and social groups, such as clans, lineage, or tribal groups, and more significant than the

individual acting alone (Wallerstein, 1979).

The household is defined in Chapter 1 as the primary, identifiable, functioning domestic unit. The great variety of form, size, and organization characteristic of the African family-household is also explained in this chapter, and the fact that such households are not necessarily based upon the core relationship of husband and wife.

Increasingly, it is the household which is recognized as the critical decision making unit by workers in the field in Africa. Where remaining elements of communal organization exist, such as the customs of land allocation or grazing rights, or other established rights to resources, these are known to be important factors in the explanation of household economic behavior. From the perspective adopted here, these are considered to be inputs into the decision making process from outside the family-household. The household is not defined as a completely autonomous group.

The basis of the definition of the family-household as used is "commensality" or economic interdependence. A distinction is drawn between the family as a social unit and the household as an economic unit, and the household is thus seen as a subset of the family. A distinction is

also drawn between the household as a group and the geographic locus of the group, which would in effect narrow the definition. Place enters the definition as the focus of domestic activities, but it can be demonstrated that a household can often have more than one such focus.

The empirical evidence concerning the nature of the African family-household, its economy and situational and historical perspectives, has been already discussed in Chapter 2.

The far reaching changes that have taken place in Africa during this century have not altered the fact that the majority of people there still belong to farming family-households with domestic economies based on cultivation and herding or on a combination of these activities; with most now also finding at least part of their support from work outside the household. They have been described as "peasants" because their ultimate security and an important part of their livelihood comes from their rights in land and the use of family labor, but, their involvement in market activities, their increasing dependence on off-farm income, and the common use of hired labor in many areas, takes them a long way from the "natural economy" of Chayanov where the whole activity of the family-household unit is geared towards self-subsistence

from the farm or the pastoral homestead.¹ The term "peasant" as used by the social scientists contains a great deal of conceptual inconsistency and should, in any case, be used with caution.²

A large measure of support may come from off-farm or non-farm activities. Family members may be wage-earners in off-farm occupations while at the same time the household has to hire labor for its farm work. Even urban family-households, those of shopkeepers or factory workers, are often found to have a farm component to their livelihoods, and complex support patterns.

¹The natural economy as defined by Chayanov is one in which the family uses only its own labor to produce for household consumption or deferred consumption. In terms of economic behavior, this means that the only goal of producers is to satisfy consumption needs. These needs are affected by the size of the family and by the ratio of workers to non-workers, and these factors change with biological changes in family composition; hence the term "natural."

Chayanov (1925) and translation by Thorner et al. (1966). Also see Kerblay (1971) in Shanin (1971) Peasants and Peasant Societies,: 150-160.

²A peasant has been defined as a farmer (Wolf, E., 1966), a small producer (Firth, 1951), and peasants have been described as "rural folk" which includes farmers and fishermen (Firth, 1951), or as marginal groups belonging to "part-societies with part-cultures" (Kroeber, 1948). There are even "worker peasants," which takes us a long way from the term peasant as understood by Chayanov. Since the term has no precise meaning, it is always necessary to state the intended meaning when using it. See Saul and Woods (1971) in Shanin (1971): 103-114.

What follows from these circumstances is that African family-households have a much larger economic role in society as producers, as well as consumers, than do their counterparts in Europe and in North America. In these and other more industrialized countries, the family-household is viewed primarily as a residential group of consumers, in terms of its decision making. From this perspective, production activities are only important as a substitute for consumer spending. They represent in this context trade-offs of time for money.

Trade-offs between production and consumption decisions are the basis for the theory of the household production function which has been elucidated in Chapter 3. The household production function represents the resolution of choices made in the household between production and consumption activities and the investments of time, money, and other resources into these two major categories of activity. It is a theory which provides the rationale for examining how the household economy functions.

In the African case, the trade-offs are more complex because of the need to include the elements of commercial activity, that is, the production of things for sale and the hiring of extra family and non-family labor. In some sense it might be true to say that many African family-households growing cash crops or dealing in commercial

livestock should be thought of as household-firms, but, because the household and the farm are essentially interdependent, sharing the same stock of human and other resources, and because their functions are also interdependent, it is the household production function in its expanded form which is the key to understanding their decision making, not the production function of the firm, from which the household production function was derived (See Chapter 3).

The four important concepts from the behaviorist school of thought are fundamental (Simon, 1957):

- a) sub-groups exist in a complex organization and they have a profound effect upon decision making
- b) the relationship among sub-groups is a reflection of the nature and form of the organization
- c) the decision making process involves goals, varying perceptions of choice and situation, limited abilities, and varying aspirations, as well as temporal factors, all summed up in the term "bounded rationality";
- d) trade-offs in decision making.

The combination of domestic and farming activities, the effects of non-farm workers on household and farm investments, the sharing of a common stock of resources between the household and the farm, and the effects of social factors on all activities, domestic and commercial,

mean that it is essential to deal with the whole as one complex organization rather than to deal with the elements separately.

An Overview of the Model

The model represents the family-household as an economic organization in the sense of an organization subject to change. The situation is seen to be one where the economic behavior of members is linked in a "patterned, interconnected system" (Simon, 1957). The family-household is recognized as an interdependent group of members focused on a place or places. It is not:

- a) based on a fixed structure
- b) based on a permanent locus or residence
- c) based on a fixed, unchanging, set of rights and obligations, or on a fixed set of organized tasks.

To understand the workings of an African family-household, the data must be ordered in relation to this view of reality, and this means ordering in a systems perspective. In this view, the African family-household is an open socioeconomic system, receiving inputs from and returning outputs to larger, family and other, socioeconomic systems. Sub-systems within the household and the interrelationships among them are recognized, and the whole is seen to be composed of interacting sub-groups and interrelated functions.

As a system, the household is seen to be operated by the actions of its decision makers in contrast to natural systems that may be stochastic or deterministic in operation. Observed patterns of activity in a household will thus depend upon the resolution of the decisions made by its members. Economic behavior is the process that powers that system. This is what is meant by the behavioral approach.

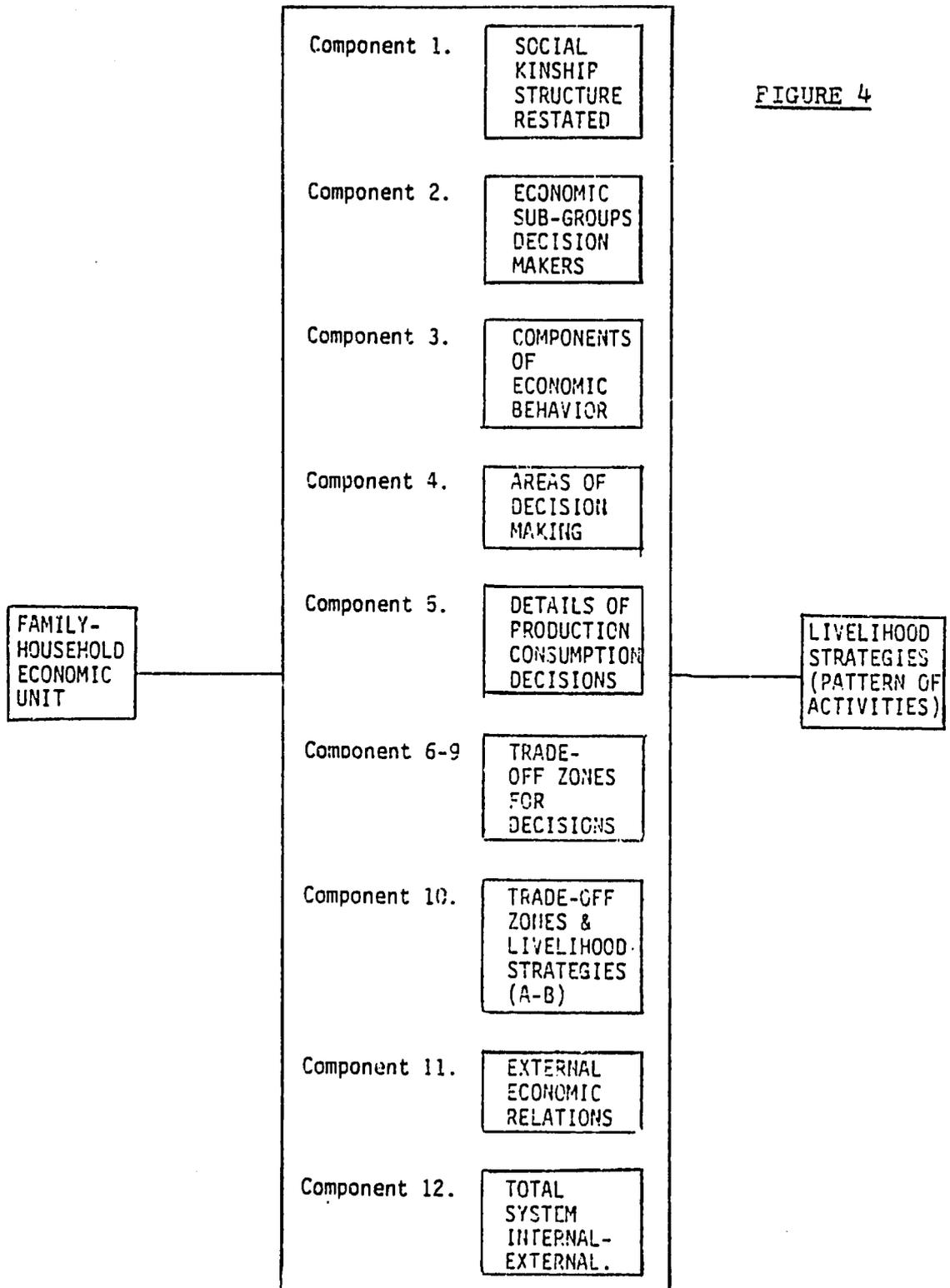
The behavioral approach also means that we recognize that an organization does not necessarily act as one unit with a single goal, but that it acts in accordance with the decision making structure of the organization, and this, in turn, is a reflection of the nature of that organization. This approach is dynamic because it acknowledges the possibility of multiple goals, subject to change, based upon both individual and group values and purposes. It also acknowledges the possibility of conflict as well as cooperation. Inherent in the concept is also the idea of a decision making process, a way in which choices are made and problems solved.

Economic behavior in the African family-household is held to be purposive rather than determined, with cultural and social constraints accepted as explanatory variables. Purposive behavior is distinguished from reflexive or

unconscious behavior, and includes behavior that is governed by rules and experience as well as behavior which is innovative. This definition is in line with that of "bounded rationality" given by Simon (1957) in which empirical as opposed to ideal economic behavior is argued to be significant.

Figure 4 shows the breakdown of the model into 12 components which sequentially build up the picture of the African family-household as an economic organizational system. The twelve components are:

1. the social and kinship structure transposed into the economic organization (transactive relationship);
2. the economic sub-groups and decision makers identified;
3. the components of economic behavior identified;
4. main fields of decision-making identified in relation to resource use;
5. production and consumption decisions as two major categories, details in African terms;
6. overlap of production and consumption decisions, trade-off zone, the basic model of the household production function, and the dynamic of the model;
7. overlap of production and consumption decisions plus the addition of the second field of production decisions, the expansion of the basic model to fit the African case;
8. simplification of (7) to derive an extended household production function;



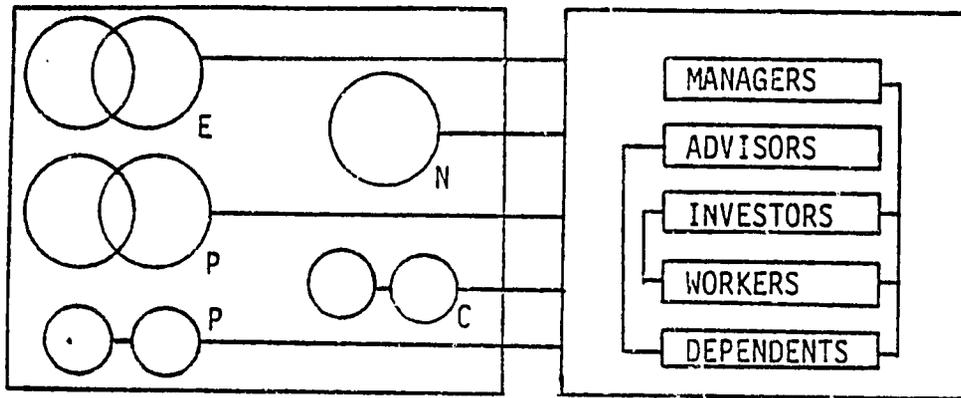
THE AFRICAN FAMILY-HOUSEHOLD UNIT AND SYSTEM COMPONENT MODELS.

9. using the extended household production function to show overlapping decision fields where labor time is made explicit;
10. expression of overlapping decision fields in terms of time allocation and therefore of work strategies;
11. the external economic relations of the family-household, making explicit the flows between the household and the larger economic environment;
12. interrelations between the internal and the external flows of resources of the household.

Each of these twelve components will now be discussed and explained more fully in relation to the diagrams.

Social Structure versus Economic Organization

The first component of the model (Fig. 5) restates the social and kinship structure of the household in economic terms, which is the first step towards the perception of the household as an economic unit rather than a social unit. The social and economic organization of the household are closely related in a two-way, or trans-active sense, for the social and kinship roles of members both determine the economic roles, while, changes in economic roles feed back to alter the social relationships. Kinship relations are still critical to understanding economic behavior in African households, but this does not mean that rigid familial and kinship structures remain



SOCIAL STRUCTURE

ECONOMIC ORGANISATION

(KINSHIP RELATIONS OF
HOUSEHOLD)

(SUB-GROUPS)

- N - NUCLEAR FAMILY - HOUSEHOLD
- E - EXTENDED FAMILY - HOUSEHOLD
- P - POLYGAMOUS FAMILY - HOUSEHOLDS (2 FORMS)
- C - CONJOINT FAMILY - HOUSEHOLD
(MULTI-KIN EXAMPLE JOINT FRATERNAL)

COMPONENT 1:

RELATION OF SOCIAL STRUCTURE AND ECONOMIC
ORGANISATION: KINSHIP AND SOCIAL ROLES
TRANSPosed TO ECONOMIC ROLES.

FIGURE 5

unchanged or that traditional norms are being preserved. Kinship terms, described by Bohannon as essentially "role tags" (Bohannon, 1966), may now indicate either old or new status positions in the household, and kinship ties can be manipulated to bring economic advantage as well as used as the rationale for the retention of some established order. There is a mingling of both continuity and change, so that the importance of understanding kinship relations lies in the explanation that they can afford for household economic behavior in respect of either or both, while patterns of traditional kinship systems are only part of the explanation.

No matter how diverse the social relationships in the formation of family-households, there are five, non-discrete, sub-groups which are common to all of them. These are: managers (including the head of household), advisors, investors, workers, and dependents. Translating all social roles into these economic roles is a starting point for analysis. What has been described as the great complexity of African familial patterns (Handwerker, 1977) can be reduced to manageable proportions by redefining roles in this way. Such a redefinition also allows the focus to shift to the critical economic aspects of the social or kinship roles themselves, to understand, that is, what the "role tags" mean in practical

terms. Looking at this another way, only by understanding the social and kinship relations of the household is it possible to begin to understand who owns, controls, and uses the various household resources, and what are the bases of work organization and the divisions of responsibility.

In Africa, it is the multi-kin household, not the nuclear family-household, which is the norm, and there is a great variety in the way that households are formed and organized, and in the way that they are related to other family and kin groups. The expected and much heralded transition to a more uniform pattern as the outcome of urbanization and the process of industrialization is not yet occurring on a large scale (Handwerker, 1973, 1977; Caldwell and Okonjo, 1968; Caldwell, 1975; Ominde and Eijiogu, 1972). As Handwerker (1977: 259) writes:

African familial patterns whose complexity has been acknowledged for nearly half a century are a case in point (for non-uniformity)... As African populations moving to urban areas have become parts of the industrial system...they have created and maintained an extra-ordinary array of co-existing familial structures - kinship, residential, and domestic structures, marriage procedures, obligations to kinsmen, and attitudes towards family life.

Where small nuclear family groups are to be found, particularly in the larger urban places, they are often closely tied into family economic networks, some of which

extend into the rural areas. In other places, extended family-households remain important and are sometimes even dominant features of the urban scene. In fact, it is in the towns and cities that individuals find it most essential to draw upon the nexus of kin relations, especially if they are unemployed or paid poverty wages (Handwerker, 1977; Skinner, 1974; Mitchell, 1966).

In the rural areas, the large co-residential compounds of the past are tending to break up as the farming systems with which they were associated are altered, as a result of the increase in the commercialization of agriculture and in non-agricultural employment among family members. The family-household, however, which was often a separate unit within the compound, still remains as a generally larger and more complex organization than the elementary or nuclear family-household, consisting of an extended family, either in the strict sense of "grand-family" used by the anthropologists, or in the looser everyday sense of the term to mean any fairly large multi-kin household. A basic African family-household can be very complex without considering the further extension to shared compounds.

The African family-household may be formed around a number of different primary relationships or even secondary ones, so that it is not always based upon the core

relationship of husband and wife. Many African marriages are polygamous, involving many more kin relations (Boserup 1970). Father and son relationships or relationships of siblings may be the basis for household formation. Other members are enjoined in the family-household by virtue of reciprocal obligations vested in particular kin ties, while non-family members may be included as hired workers or as the recipients of traditional charity. Formerly, many households might have included slaves. Formal slavery no longer exists but there are places where the position of some of the descendants of slaves is little changed. Thus Murdock (1979: 6) writes of the Shukriya people in the Sudan that "...in general the descendants of slaves continue to carry out the same kind of tasks in elite households as did their ancestors."

The composition of the African family-household is thus immensely varied, as are the kinship relations within it and those which bind the household to other kin and lineage groups. The significance of those relationships is also varied and a matter for empirical investigation.³

³Bohannon reminds researchers that the significance of kinship terms is always a matter for empirical investigation and that there is no useable theory (Bohannon, 1966).

There have been many changes in significance, including in some cases even a change in terminology to fit these changes, but they are still basic to understanding how a household is organized, how it functions, and how it fits into the larger environment of social and family units. The impacts of change have been differential and there is no fixed pattern.

Because the patterns of authority, control, responsibility, and obligation within the family-household are not fixed in a rigid mold that exactly reflects some expected cultural norm of social organization, there is a need to research the actual economic relations of the members. It is this lack of conformity within the recognized cultural frontiers of social organization that is one of the main reasons for the utility of this research model.

Some examples of the main types of social organization in the African family-household are given in the box on the left in Figure 5. These range from the simple nuclear form to two forms of polygamous households, to various forms of extended family groups and conjoint family groups, and multi-kin households. The meaning of these terms is given a fuller explanation in Chapter 1.

The five sub-groups which are common to all households in the sense of categories, though roles may

be combined in actual circumstances, are managers, including a head of household, advisors, investors, workers, and dependents. These are set out in the box on the right in Figure 5. The five sub-groups are overlapping, not discrete or separate.

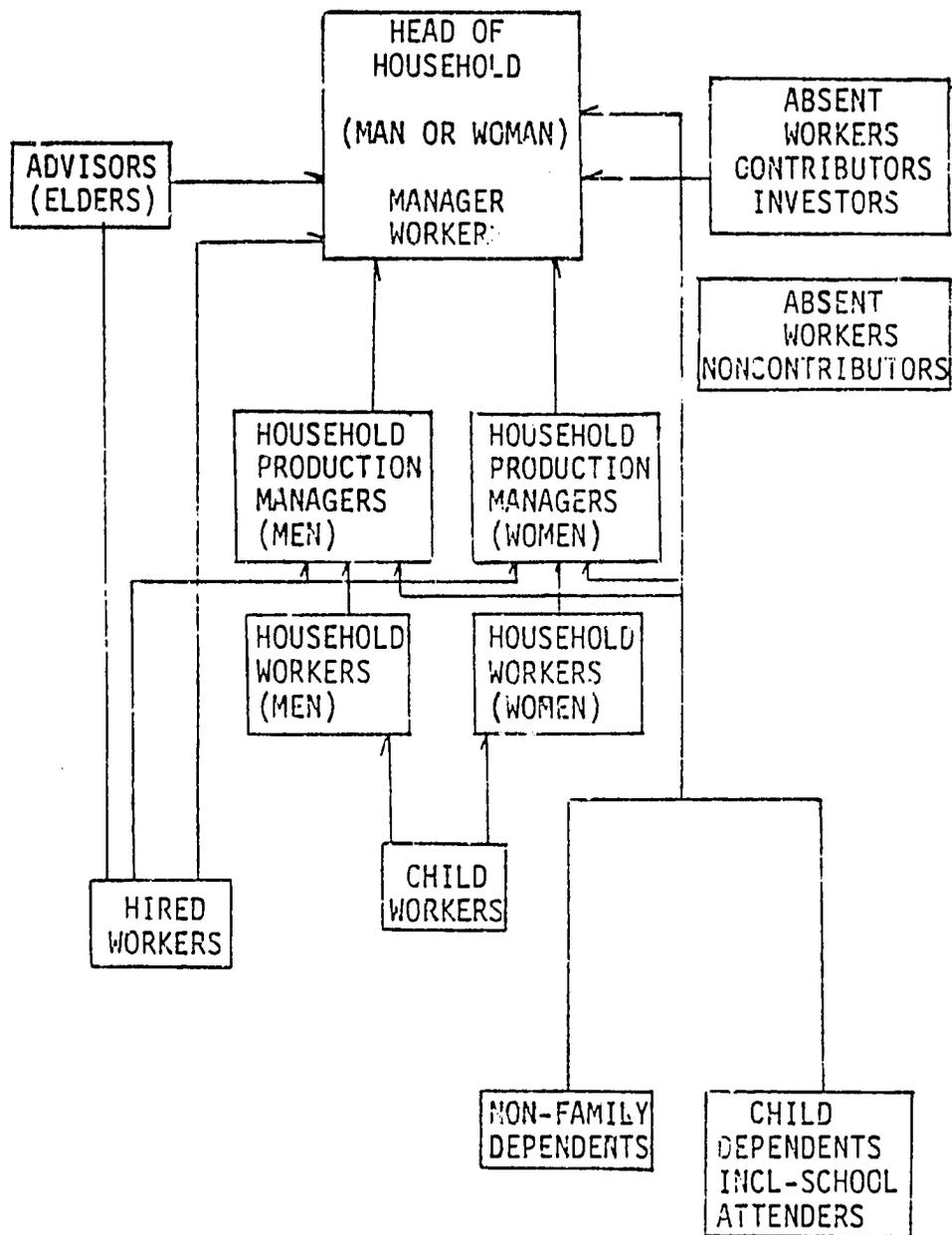
Changing the perspective from the social to the economic roles of the members of the family-household is the first step in moving from the particular and idiosyncratic to the general. Once relationships are expressed in economic terms, the social factors become the explanatory variables. Thus, for example, a head of household owning three separate farming units and a small shop on the roadside might have three farm production managers and one shop assistant working for him. To know that two of the farm managers are wives of the household head and that one is a younger brother, while the shop assistant is a daughter, would certainly help a researcher to understand something about the production costs, the cash flows, and the distribution of produce. In other words, the fact that social factors are important in the explanation of economic relationships is a necessary premise of any research work of this nature. To give a further example, in assessing the availability of labor in a farming or herding unit, it would be important to know that children of eight years are counted as workers and not only dependents in many of

these groups. Likewise, any rigidities in the pattern of work organization caused by the sexual or kin related divisions of labor would need to be known if innovations were planned that might depend upon some alterations in such traditional patterns.

Identifying the Sub-groups and Decision Makers
in the African Family-Household (Figure 6)

The most important decision maker in the African family-household used to be the head of household, a position that was determined in complex households by age and seniority and was usually the senior male; and he often had a large degree of control over resources and the allocation of tasks. His authority, however, was seldom complete. In some cases important resources such as land and animals came under the aegis of a higher authority outside the household, such as the lineage head or village chief, while inside the household his power was limited by the elders, and by customary divisions of responsibility. Today the position of head of household has been weakened by external changes, which have brought new factors into family relationships. Subordinate males in the household can now often find ways to escape direct management by taking outside employment, whereas the only escape used to be to take up new land for farming, with many attendant risks. A measure of this change in the authority positions

FIGURE 6



COMPONENT 2:
ECONOMIC ORGANISATION OF THE AFRICAN FAMILY-
HOUSEHOLD: IDENTIFICATION OF SUB-GROUPS AND
DECISION-MAKERS.

is the number of tax payments that are now paid by the individuals instead of by the senior male on behalf of the group. The role of subordinate males has also been changed by their new situation as investors or contributors to the household (Norman, 1978). Although all of these changes are extensive, they are not universal, and the bonds of authority can often remain strong, sometimes applying in a new way. There are few women heads of household and they are seldom in control of large groups of people or many resources. One of the consequences of external change, however, has been to increase their number, for a consequence of high rates of worker migration to the towns has been to leave the running of the family farmland to women (Boserup, 1970).

Whatever the particular situation, it is a general characteristic that in the African family-household the decision making structure is fragmented and consists of a number of different centers so that these, the mixture of individual and collective responsibilities, and the interplay between individual and collective interests, are the key to understanding economic behavior. Where the household is based on more than one location, a spatial component is added to the divisions of assets, responsibilities,

and tasks.⁴

Managers are distinguished as a sub-group, though in the African family-household they are also workers. The responsibility for food provision is often separated from the responsibility for cash crops, selling of livestock, and the earning of money in other ways, so that the management of these tasks and resources can fall to different people. Collective labor is used in some areas on the fields where food crops are grown, but in many cases it is the women who have the prime responsibility for the food crops and for the other vital tasks of getting water

⁴The following example describes a spatial situation of extreme complexity in domestic economic arrangements, which serves to illustrate the point.

At any given time, it is not unusual for members of an extended family to be resident in five different locations, although there is one village, or settlement, which they call "home." The kinship bonds remain strong... Typically grandmother lives in the village with the school age children, and they all move out to the lands during school holidays. The other women, mother and aunt, and the pre-school children, often live most of the year next to their fields. Instead of attending school, one or two young boys in the family may be away at the cattle post. There is likely to be an uncle, or an elder brother, or a husband, in the mines in South Africa. Finally, today, there is a good chance that some of the young adults in the family are living in an urban area within Botswana. These individuals, however, go "home" with varying regularity. Those in wage employment periodically send remittances and they all participate in the life-cycle of the family.

(Bryant, et al., 1978)

and wood for fuel. Tasks are not always specific to men and women but they often are. In polygamous households, the organization often consists of a number of matricentric units in which the women have a high degree of independence with control over land and income. Even where collective farming operations still exist, both men and women generally have some control over individual plots and can sell the produce from these for their own wants.⁵

Family household workers include subordinate family members, and workers from a larger lineage group. Children become part of the regular work force at twelve and

⁵Many African women get only limited support from their husbands and depend on their farming and trading activities to support their children and themselves. Under many traditional systems they can inherit both land and animals, either from their own or their husband's lineage group, to enable them to do this. Only in some households where there is a strong Moslem tradition do women habitually take a subordinate economic role, and this tends to be confined to the richer households where their labor can be dispensed with and their duties restricted to small chores. Murdock describes in a recent report from the Sudan Republic how Moslem women among the Shukriya group could in principle inherit both land and animals in line with their prevailing customs, but that they frequently declined control of these resources in favor of husbands or brothers, bowing to Moslem traditions of male control and management. (Murdock, 1979)

generally help with small tasks before this age.⁶ Many households also hire non-family labor, casually or, less often, on a permanent basis.⁷ This is more likely in households that have regular access to cash income from wage-earners and crop sales. Formerly, many households used slave labor.

⁶Children are often doing important work by the time they are twelve years old. The kinds of work assigned to them depends on the nature of the household economy. In the Kababish households of the Sudan, boys of this age become responsible for herding activities, either with their own family herds or with those of richer households, who pay for their services. Girls continue to help the women with their tasks of water carrying and firewood collection (Sudan ILO Report, 1977). In Fulani households in Upper Volta, the herds may be left to the care of young boys for part of the year and only taken over by the older men during the difficult times when they have to be kept off the crop fields, and also prevented from eating wet grasses which lower their weight gains (Delgado, 1979). In Bukoba, in Tanzania, where the household economy is more dependent on cultivation of crops, children of both sexes are expected to help with interplanting the annual food crops and with weeding (Rald, 1975). When children are sent to school the household sustains a loss in its labor supply.

⁷The presence of hired workers in African family-households is not new. Sometimes it is a supplement for the family's labor and in some cases it is a replacement for labor withdrawn when family members take up employment elsewhere. Sometimes tenants of development schemes hire labor to manage their tenancies, as in the Gezira Scheme in the Sudan which was begun in 1925 and which was intended to be organized on the basis of individual family farms but where "the tenants" began to hire labor "almost at once."
(El Tayeb, 1980)

The elders in the household often have a large and positive role in decision making. Although these roles have been substantially altered, and in many cases have become less important, they have not disappeared entirely. Sometimes the "rule" of the elders is used as an excuse to continue practices that have to be defended to outsiders but often their power is still real and effective.⁸

The principal investors in the family-household who can be easily distinguished as a separate group are the absent workers who send back money to maintain the household, improve the farming operations, and build up security for themselves and their dependents. Their investments may be made voluntarily, but in some cases the money is collected by the elders who control its use to pay taxes, send younger family members to school, or to invest in new land and animals, or pumping equipment for wells. Personal savings may also be invested in land, cattle, or trees. In some of the more remote regions investment directly

⁸The elders, including the head of household, often have a controlling interest in both land distribution and land use, as well as the control of money sent back by migrant workers. A report from Mauretania tells how the elders there have established a role for themselves as collectors of remittances and it is clear that they have considerable influence over the use of this money, despite the fact that these claims are being challenged by the younger men (Bradley, 1977).

affecting the household may also be made at the village level, if inter-family relationships are strong, and collectors are sent out to visit the absent migrants, even as far away as Europe. More commonly, the migrants bring the money home themselves, especially if they are seasonal migrants who spend part of the year in the family-household base. Few such dare return empty handed, but the contributions can sometimes be very small with very little productive investment. Other cash investment comes from the workers who hold part-time off-farm jobs locally.

All the family-household members are dependents but as a separate group they include very young children and children who are attending school, plus the very old and the very sick, and those long staying guests that are often found in African households, including religious pupils in some areas, the recipients of traditional charity. Children often begin to play a productive role in the family-household at an early age, and the increase in school attendance has meant a significant loss of workers to many households. Once it was only the boys who went to school but now the girls may go as well, further altering economic relationships.

The whole pattern of authority in a household group is being altered by the fact that money is now a normative part of the economy. Money represents new resources which

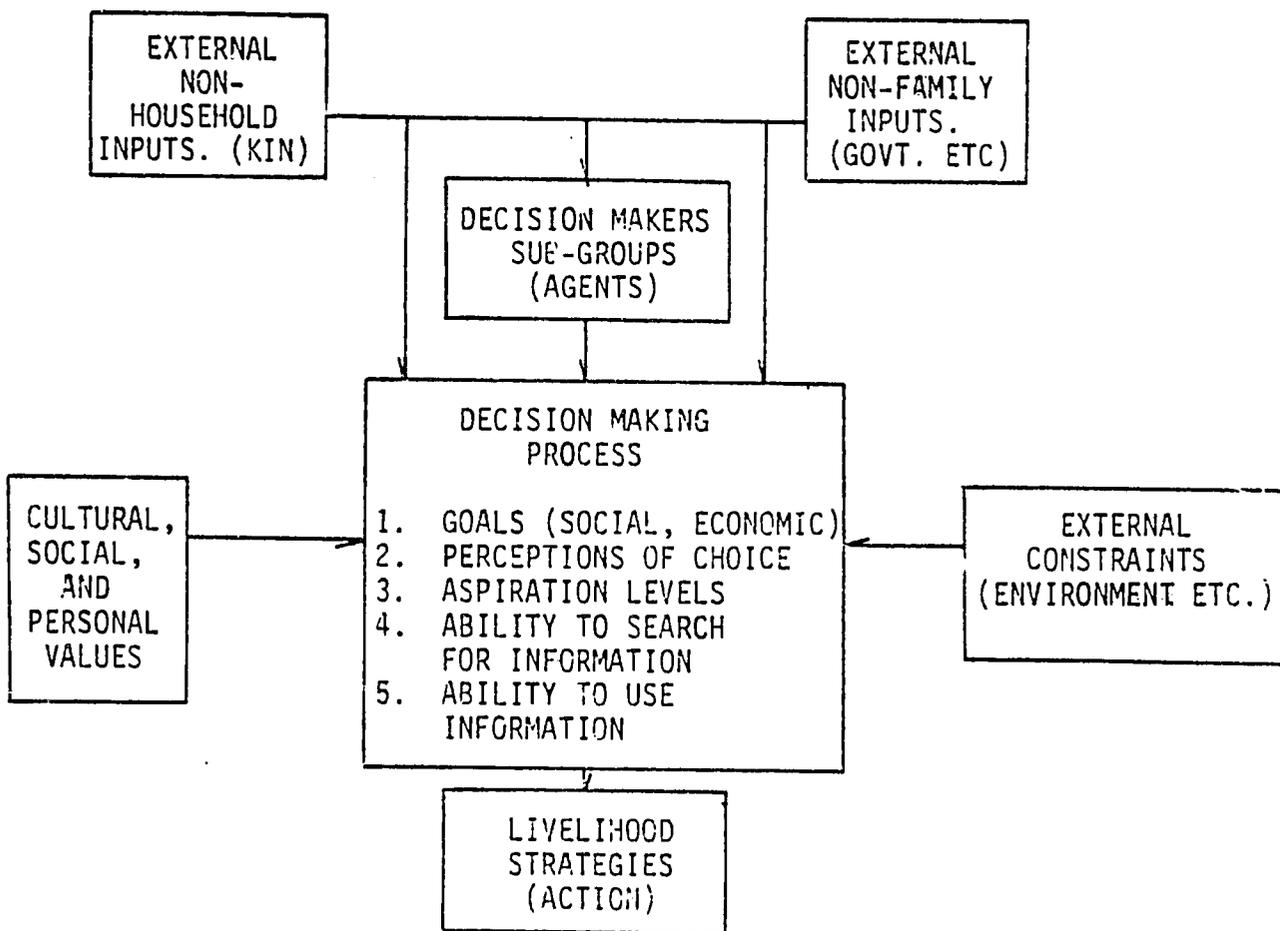
may be under new forms of control. Even pastoral households are said to be part of a "sophisticated money economy" (Baxter, 1975). The result of such changes is that there is in many instances a "dialectic" between the younger and older members of the household, and this is an important part of the logic behind resource use (Faye, 1977). Where the head of household is a brother rather than a father to the younger members of the family-household, his authority is especially questioned (Norman, 1976). Modelling the actual economic organization of the African family-household, finding out who makes the relevant decisions, and determining the conflicts of interest could be a valuable substitute for conventional planning models, especially those of farming households often seen as subsistence groups from which the household head, named "the farmer" is abstracted as an individual decision maker and potential entrepreneur (Ancy, 1977).

Economic Behavior

The third component of the model (Figure 7) sets out the critical variables in economic behavior. These are:

- a) the agents, individual or group, who make the decisions, sometimes referred to as the "actors";

FIGURE 7



COMPONENT 3:
ECONOMIC BEHAVIOR IN THE AFRICAN FAMILY HOUSEHOLD

- b) the process which includes subjectively defined goals, perceptions of choice, aspiration levels, and the search for and evaluation of information on alternatives;
- c) the personal, social, and cultural values that both shape the goals and the process of achieving them;
- d) external inputs into the decision making process;
- e) external constraints on decision makers;
- f) the output or resulting action.

Economic behavior is defined as the sum of decisions made by agents through a decision making process, that is shaped by both internal and external constraints, to achieve goals which result in action or strategy.

This definition rests on the related and overlapping concepts of "bounded rationality" and "satisficing behavior" formulated by Simon (1957), which admit the effects of internal constraints upon decision makers (such as limited ability, and aspirations that can be limited to the simple choice of satisfactory versus unsatisfactory) as well as the previously recognized external constraints of circumstance and environment (Simon, 1957).

Decision makers are seen to act within their own capacity and not to be accorded that omniscient view of their situation and alternative choices that are accredited to "economic man."

In the case of "economic man" the decision making process is assumed away. "His" behavior is known. The behavioral approach suggests that the process itself is important, that it explains the outcome, that it varies, is subject to change, and can be influenced. It can be influenced by changing goals, altered aspiration levels, changed perceptions, and by the effects of changing information fields. It can be influenced by the continuing effects of experience, social regulation, and other historically dependent factors. This approach is research oriented. It provides a lead to uncovering the empirical factors behind observed patterns of resource use.

Bounded or limited rationality as expressed by Simon (1957) and developed by others, has three important aspects. These are:

- a) the fact that information has to be searched for, that it is not a "given," which means that all relevant alternatives are not necessarily known and that typically only a few alternatives are considered;
- b) the conception of preferences as involving a binary choice of satisfactory or unsatisfactory, reached through a sequential judging of alternatives, rather than involving a preference order based on complete information;
- c) the idea of "satisficing" rather than "optimizing" goals, based on limited experience and aspirations, and conditioned by the perspective of the decision-maker rather than by any theoretical set of choices.

Most economic decisions - including those related to resource use and work organization - seem able to be viewed satisfactorily in this context. As Kates (1962: 15-16) wrote:

all but an insignificant percentage of those human decisions centering on site and situation selection, land use determination, and spatial interaction (migration, journey-to-work, journey-to-shop etc.) involve substantial conscious choices, or at least habitual choices grounded on once conscious decisions.

Agents or Decision Makers

In order to understand the behavior patterns of the African family-household members, and how these in turn result in a household pattern of activity and actual resource use, it is first necessary, to identify the decision makers or agents.

Other agents whose inputs can be significant are also identified. These are divided into two groups: family, meaning those outside the household but part of the larger family and kin group; and non-family. In the special case of the African family-household, non-family often means government agencies and their extension workers.

Decision Making Process

In order to understand the bases of the economic behavior of the household decision makers (singly or as

a group) it is necessary, to identify their goals, their aspirations, and their perceptions of alternatives and information fields, recognizing that these are all a matter of perception and subjective evaluation. Various techniques exist for such inquiries. White (1972) discusses the variations among households in East Africa in the ways that they perceive alternative water sources and what goals and values underlie these perceptions. Ways of measuring these values are also discussed.

The actual process for choosing water sources was seen there to be a branching process. The number of perceived alternatives, usually numbering five or six, were reduced to the final choice by the progressive elimination of the others which had failed to meet the criteria of acceptable costs in time or money, or the quality of water, etc. (White, 1972).

Other methodologies have been devised for studying the details of the decision making process, how certain people arrive at their goals, and perceptions of choices, and what these are (Olinger, 1970). Here it is sufficient to indicate that this is what has to be done in terms of the African family-household model presented in this chapter.

Constraints

No decision making takes place in a vacuum. Any decision taken is influenced by the past experience and actions of the agent and, or, the past actions of others (Pred, 1969). Moreover, the implementation of decisions can alter the alternatives open to subsequent decision-makers, either enlarging or narrowing the fields of choice. It follows that there are both internal and external constraints to consider when examining the economic behavior of the African family-household. It was Simon who added the concept of internal constraints to the already recognized external constraints of factors in the environment such as availability, cost, technology, time, access, etc. External constraints were seen as modifications to the normative economic theory (see Chapter 3).

The model highlights the situation in African households, and to bring the model into line with the way that the African household is currently viewed by most social scientists, the values which go into decision making (personal, social, and cultural) have been separately identified from other internal or perceptual and cognitive constraints on the decision maker. They feed into the process.

External constraints are also shown in a separate

box, also feeding into the process. External constraints can sometimes restrict choice in a formidable way in the African family-household, but of course decisions still have to be made (O'Keefe, 1978).

Choice does not always have a positive connotation of opting for a benefit: it may in many cases mean choosing the least unsatisfactory solution to a problem. It is still a choice. The external constraints that can limit choices so severely in Africa are often climatic in the case of farm households, or geographic in terms of limited access to markets for sale of produce or the purchase of necessities, or they are economic in terms of limited availability of jobs, of land, of training and education.

Resulting Pattern of Activity

In the real world, economic behavior can be influenced by chance, by systematic biases, and by constraints. The resulting patterns of activity, in this particular case of resource use and of livelihood strategies, are the outward spatial expressions of the decisions taken. The model presented here sets out the variables that have to be researched to move behind this outward expression to the causal factors involved.

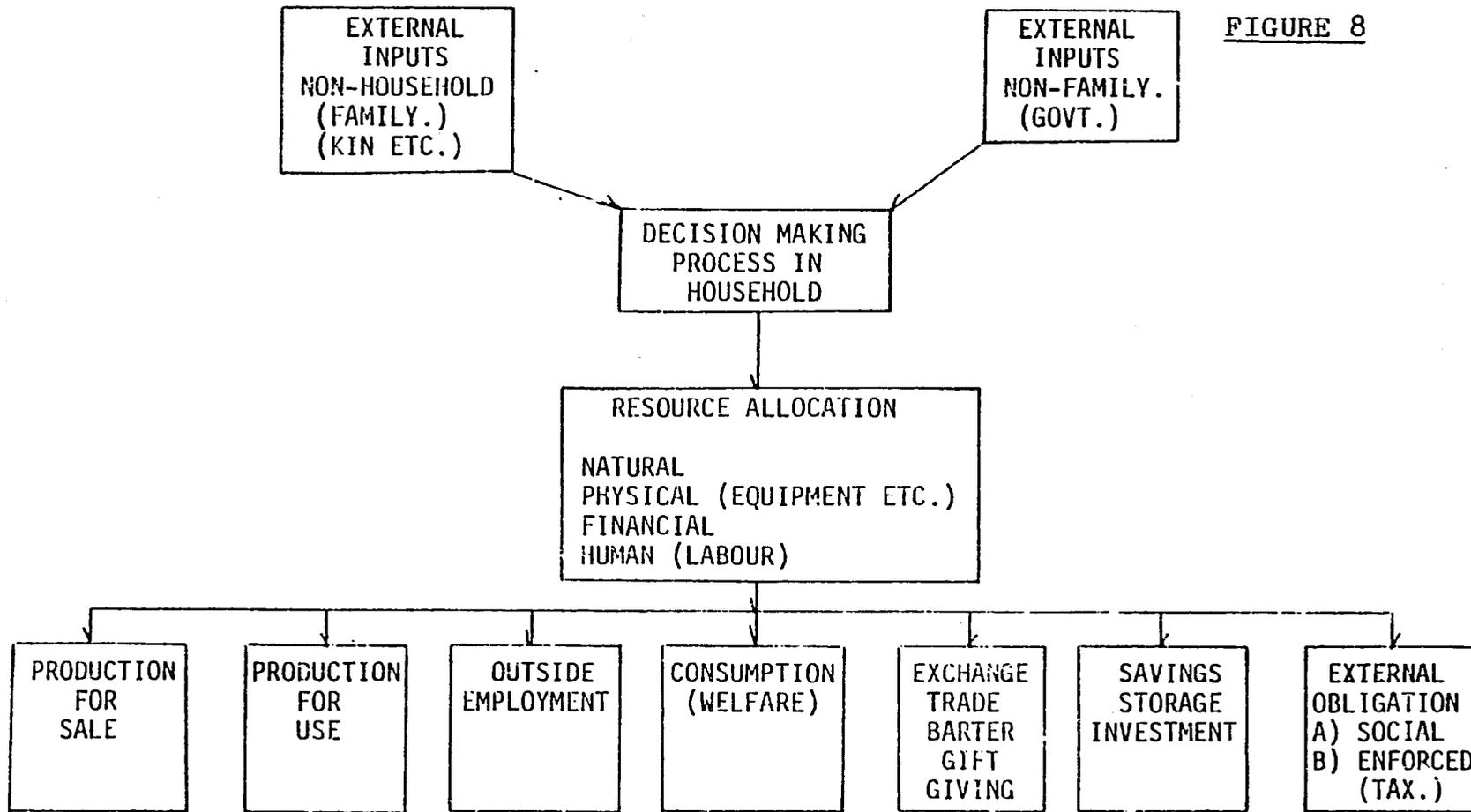
Production and Consumption Decisions

The fourth and fifth components of the model shift attention to the areas of decision making. The household decision making process is isolated, and inputs to it from outside are indicated under the categories of family and non-family inputs (Figure 8 and 9).

Interest is focussed on the ways in which decision making is applied to resource management, that is, to the allocation of the resources of the household to production and consumption activities, and to the ways in which exchange activities take place. Exchange activities include barter, gift giving, trade, and the forced exchanges of tax and tribute. In total, this amounts to seven major types of activity.

The seven major types (Figure 8), include three forms of productive activity, that is, production for use and sale within the household and the non-household production of cash from paid work or self-employment. Consumption activities may be either immediate or deferred, and the latter include savings, storage, reinvestment, and resources which are reallocated through exchange mechanisms. Seldom relying on one economic activity, the African family-household puts together a package of support from its multiple resource use, not in the sense of a totally

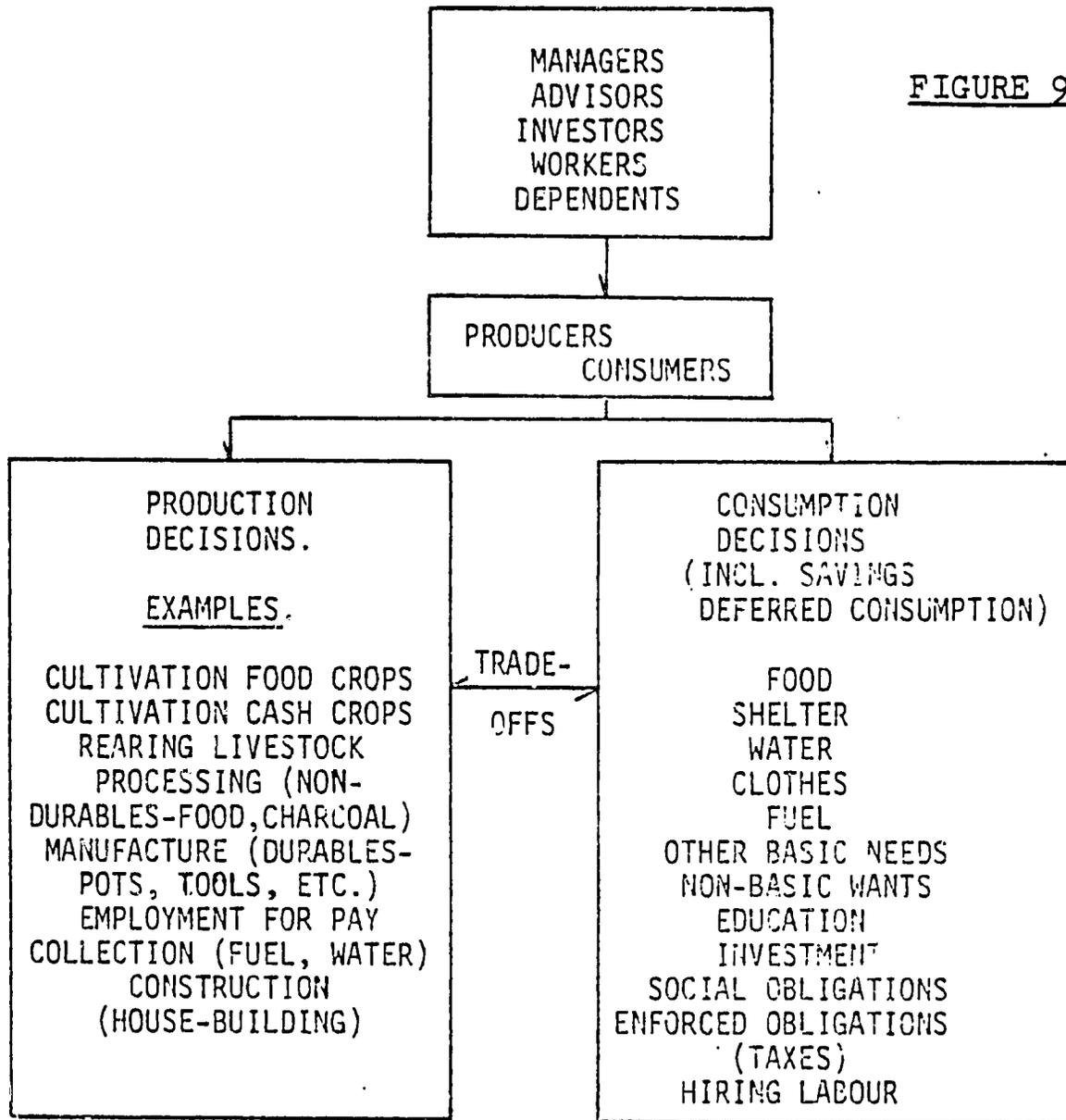
FIGURE 8



- 206 -

COMPONENT 4:
PRODUCTION - CONSUMPTION DECISIONS IN THE FAMILY - HOUSEHOLD.

FIGURE 9



COMPONENT 5:
DETAILS OF THE PRODUCTION-CONSUMPTION DECISIONS.

controlled and managed operation but in the sense of a group of people whose shared interests and common resources make for a coherence in the use of those resources.

The resources which the African family-household commands are of two basic kinds, human resources (or labor resources), and natural resources which have been traditionally the foundation of the support system for such households. The latter include land, animals, access to fishing waters, and other natural goods such as water and woodlands.

Human resources will consist of the family-household labor, but may also include family labor from outside the household, such as dependent kin who are sheltered or employed in the household, as well as non-family labor which has been hired to supplement or replace family labor employed elsewhere. There is a considerable amount of hired labor in African farm-households, either seasonally or on a more permanent basis where employment opportunities for family members are good or where the use of hired labor allows a family to profit from the expansion of activities related to settlement schemes. The total labor force of the household may be deployed among different

locations as well as among different occupations.⁹

Both the human resources and the natural resources can be converted to financial or other physical forms of resource. Time may be traded for cash or goods through the employment process, and, likewise, the natural

⁹Another example from Kenya shows how brothers there have used their family relationship to combine resources in different locations:

In connection with the establishment of group ranches, some Kaputietti Maasi have shown a keen perception of the group ranches' structure and dynamics. In some cases, members of a joint family, i.e. brothers, have taken up membership in different group ranches in order to guarantee their movement from one area to the other when there is a scarcity of grass and water.

(Hedlund, 1971: 7; Halderman, 1972: 10)

Similarly, Murdock (1979: 6) describes the situation for one of the poorer Shukriya families in a resettlement scheme in Butana, Sudan:

A single tenancy of 15 feddans (cf. acres) is insufficient to support a household on its own. Combined with other activities, particularly with traditional stock raising, a tenancy can yield enough supplementary income to be attractive. But to exploit both the tenancy and to raise livestock the family must have the proper mix of labor resources. During the cultivating season for instance, animals must be kept away from the fields. A family that can provide both a herdsman and a cultivator can exploit the new opportunity without abandoning the security of the old. Two adult brothers might combine resources in this manner, with one farming and the other herding their joint estate of land and animals.

(Murdock, 1979)

resources of the household may be sold, or processed and sold, or used in a processed form in the household. Firewood, for instance, may be altered to charcoal and sold or bartered in that form. Land, which under the indigenous systems of livelihood could only be inherited or borrowed as a resource, can today be sold. This means that it is lost to some households as a natural resource, while for other households a new means of acquiring land is provided.

Cash is now a normal part of the resources of the African family-household and may be under different control from the land resources, though land may be bought with it, or animals purchased and added to the family herd with either individual or collective forms of ownership ensuing. The point is that at the present time the two basic resources of the household can either be used directly in the production and consumption activities, or they can be used indirectly, being converted into other forms of resource.

The fifth component of the model (Figure 9) develops the point that resources are not allocated to these seven types of activity by a neat division of assets among them, but that a dynamic process is involved in which there are trade-offs made among them in accordance with the many factors that affect household decision making, as set out in a separate earlier component of the model (Figure 7).

As a group of both producers and consumers, the members of the family household, identified in the model by their group economic roles, make choices both between and within these two major areas of decision making. Production choices may therefore, be both related to and affected by consumption choices, while decisions about production activities can be a resolution of the goals, opportunities, and constraints that govern the behavior of members. The consumption choices can also reflect both opportunity and constraint and the resolution of interests among the members.

The details of the sets of activities that fall under these two major headings of production and consumption are given here for the African case specifically, though clearly they are part of a more general model. It is important to recognize that paid work, the mainstay of family-household support in the more industrialized world, is in Africa only one option among three types of productive activity. The others are the production of things for sale in the household and the production of things for use, particularly the production of food crops and the food products derived from animals.

Production activities can be assigned to these three categories but there is a further useful breakdown that can be made into the nature of these productive activities,

those that are related to cultivation, to livestock rearing, to collection of natural resource goods (fuel, water, plants, etc.), the processing of edible and non-edible goods that are non-durable (preparation of maize or millet flour, of butter or milk, or of beer or dried fish), and the manufacture or crafting of durable goods such as tools, pots, baskets, cloth and other similar things. A further category is the construction of large items such as houses or boats, or other capital goods.

The products that result from all these forms of activity may either be used in the household or sold or bartered. The distinction between the production of goods for subsistence and the production of goods for sale or exchange is not always sharp and clear, however. In some cases there is a marked division between food crops and cash crops, or between the management of livestock herds for commercial purposes and the use of herds for household wants, but more frequently this is not the case. Food crops may be sold when cash is short, or cash crops which are edible may be kept for household use if other food crops fail or prove insufficient. The accounting for the provision of food items and cash income is not kept separately in many cases, and cash crops may then be sold to purchase food grains or other essential food items.

The effects of any one of these activities upon the others is therefore a critical part of understanding the whole pattern of household activity. It has an important bearing on the practical aspects of farming and livestock rearing. For instance, in relation to the latter, the fact that the management of livestock for home needs and for commercial purposes are not generally separate enterprises in Africa has a bearing on the problems associated with off-take levels from family herds. The production of cattle for milk and butter, the family-household needs, is different from the production of cattle for meat, the purpose of most commercial production, requiring different kinds of herd composition, so that the two types of enterprise are not easily combined.¹⁰

If it is difficult to categorize activities and products neatly into commercial and subsistence divisions, it is equally difficult to make precise distinctions on the same basis among the members of the household's labor force, especially for those members who are engaged in

¹⁰ Because milk is the pastoralist's basic need, his herd is composed very differently to that of the commercial rancher. Only lactating females produce milk... Typically, pastoralists' herds include 50-60 per cent of breeding females compared to the rancher's 20-25 per cent... A beef rancher... is uninterested in milk except as food for... young animals. (Pratt and Gwynne, 1977: 36)

farming or herding work. For those who are away from the household, working for wages or salary, the position is clearer but it is not completely unambiguous. There are many who combine such outside work activities with farming, either on a regular seasonal basis or in a less defined way where there is much part-time or casual employment combined with farming and herding activities. Choices made, therefore, in this respect are not simple, once and for all decisions to engage in a particular work activity but represent an on-going and changing part of the dynamics of the household organization.¹¹

Consumption activities can be analyzed under the two major headings of immediate and deferred consumption, the latter including savings, storage, and those goods or resources held back for reinvestment or reallocation.

Besides the more obvious forms of cash savings and food storage, deferred consumption would also include savings held in the form of livestock, the saving of seeds from one harvest to another, and other kinds of capital held in the form of gold and silver jewelry.

¹¹Bartsch, W.H., and Richter, L.E., (1971) discuss the importance of looking at labor flows as well as labor stock.

Investment in African family-households falls into a fairly well established pattern at the present time. There is the investment into farming inputs, that is, the expenditure on fertilizer and insecticide, on new improved seed varieties, and on new equipment, or on cattle dips and veterinary services, things which are being pressed upon the African farmers, who receive them willingly or unwillingly. There is the preferred investment in education which many African parents still see as the key to livelihood improvement for the whole family-household.¹² There is the investment made in social activities which are destined to bring reciprocal advantages, that is the fulfilling of social and communal obligations which make for mutual security in places where people need to depend

¹²In many places, these expectations are no longer being met. A report from Kenya gives some of the reasons why education does not now necessarily lead to higher incomes and better jobs. Speaking of the present generation of school leavers the point is made that:

---- frustration ---- is due to the gross imbalance between their own prospects of income from work and those of others who are more educated, or have been educated before them. The root of the problem lies in the interaction of the conventional educational system and the wage and salary structure through the allocation of jobs and wages by reference primarily to educational qualifications. This has led to a great desire for education at even higher levels, such education being associated in the minds of the public with income aspirations and expectations which the economy is becoming increasingly unable to fulfill.

(ILO Report, Kenya, 1972: 11)

more on local help than on distant official services, and there is forced investment in tax payments or in tribute to higher authority. The return of remittances to the family-household by migrant workers can be considered a form of investment for them in the maintenance of ties to the family group and of interest in the family land holdings. Sometimes they may make a direct investment in the land or the herds, or by funding some local project or paying for school expenses for other members of the household (Mitchell, 1958).

Investment in hired labor can allow a family-household to manage more land or manipulate more resources, and this is a widespread practice in some regions of Africa. Much of the Gezira Scheme in the Sudan is run by tenant farmers on hired labor, for instance, which frees the tenant to maintain other livelihood options.¹³

¹³Not every tenant is poor, however. A number own lorries, tractors and even combine-harvesters. One or two are millionaires. Their yields are high, but this is not so much because they are better farmers, but because they have access to ready cash.

Some, like Abbas Mohamed Dafallah, from Barakat block, who has been a tenant since the start of the scheme in 1925, own shops, others come from rich families or are able to manipulate kinship relationships to acquire extra tenancies. Many are the merchants who deal in sheil with other tenants. (Sudanow, March, 1980, : 44)

Investment in trade is one of the more common forms of commercial investment, and ranges from the level of petty household trading to well organized commercial ventures in which goods or produce are moved over long distances by trucks often on dangerously eroded dirt roads. Trade in many areas is the monopoly of women who have expanded a traditional, local, small scale activity into a large business venture and learned to profit from regional disparities in food production or have found a niche as "middlemen" in distributing goods for urban shop-keepers. Women in West Africa and in Kenya are noted for their role as important traders, but these are not exceptions. Moslem women are not allowed to take up such activities, however, and in those regions of Africa where this is the dominant religion, the trading is largely in male hands. In the urban areas, trading may be the family-household's main occupation and is associated with a fixed location in a shop or market, but only rarely is it the family's only source of support.

Investment in non-household enterprise is noted in the model for the sake of completeness, but it is the prerogative of the 'wealthy few' in most African countries. For the rest, investment is usually small scale investment in family business, such as the purchase of a car to use

as a taxi or a sewing machine to start up a tailoring business.

The resources directed to immediate consumption can be described under the headings of basic needs and wants, and non-basic or discretionary wants. Resources are used, either directly or in processed form, for the satisfaction of basic needs such as food, water, shelter, clothes, and fuel for warmth and for cooking. These are the essentials of daily living and as categories they are common to all households, but particular items which come under this heading will vary with place, people, and culture.

Likewise, there is always a set of what might be called basic wants, things which a household is accustomed to use and regards almost as necessities, though they may not be essential in a survival sense. These items also vary from one household to another, although there are many cultural patterns that may be discerned in relation to them. Certain spices or preferred types of grain, needed for the preparation of a particular dish or brew, would fall into this category.

Non-basic or discretionary wants are those non-essentials that a household consumes, such as non-basic food items like sugar, tinned milk, tea, coffee, chocolate, and soda drinks, store-bought clothing and shoes, store-bought furnishings, and radios, bicycles, and watches--the

luxury items of African households.

African households generally have only low purchasing power, but the greater availability of cash, as the money economy spreads, leads to the purchase nowadays of many items formerly made in the household. Cheap enamel and plastic housewares replace the home crafted pots and cooking vessels, metal bed frames may be bought to replace the hand fashioned wooden and rope beds, and home made rope or leather sandals may be discarded for Bata Shoe Company products, for instance. Nevertheless, the amount of purchased goods in any African household is likely to look small by western standards, and decisions to make or to buy things are not made lightly. Lists of household possessions given to interviewers for budget surveys reveal a pathetically few cherished items and very little household furnishings, even of basic things.

Consumption choices between purchase and home production are often made on the basis of cash availability in a very strict and limited sense, where cash shortages are chronic or frequent. The small amounts of cash available to a household mean that the most usual use made of it is to purchase necessary foodstuffs. This is a finding that many researchers are now making and is in line with a more general finding that the lower the cash income the higher

the proportion of it spent on food (Engels Law). This is true despite the fact that a large part of the food budget is supplied from subsistence production.¹⁴

Because cash is now a resource in most African households, household production, may be for basic needs, or it may be to generate cash, while household consumption of either basic needs or discretionary wants may be satisfied by home production or by the expenditure of cash resources. The pattern of production and consumption activities, therefore, is a consequence of the interaction of decisions in both of these areas. There is an overlap of these two major decision-making areas and household choices made by members represent trade-offs in respect of time, money, and the satisfaction of consumer needs and wants, and other personal and collective goals, among the options available in terms of this overlap.

¹⁴A survey of household budgets for Fulani family-households in the Tenkodogo region of Upper Volta revealed that food purchases account for as much as half of all household expenses every month except during the harvest period from October to November. Purchases were largely of grain staples, not of luxury items (Delgado, 1979: 23). The sales of livestock provided the necessary cash for purchase, what has been described as "money for subsistence" (Kuper, 1965).

The Household Production Function

The household production function is the theory behind the dynamic of the model. The next five components of the model develop this basic theory to fit the African case, and to elucidate the concept of overlapping decision making fields which is derived from it (Figures 10, 11, 12, 13, 14).

The theory is concerned with the explanation for the decisions made by household members about in-household and non-household use of time, and between time and money. These represent the trade-offs that lie behind the choices related to production and consumption decisions in the household. The resolution of these choices is the household production function, the relation between the output of the household production and the inputs that are needed for it, that is, the inputs of time, money, and goods.¹⁵

¹⁵A production function is simply the relationship between inputs and outputs in terms of the quantity of inputs needed to produce a given quantity of output. It can be written:

$$Q = F (x, x_2, \dots, x_n)$$

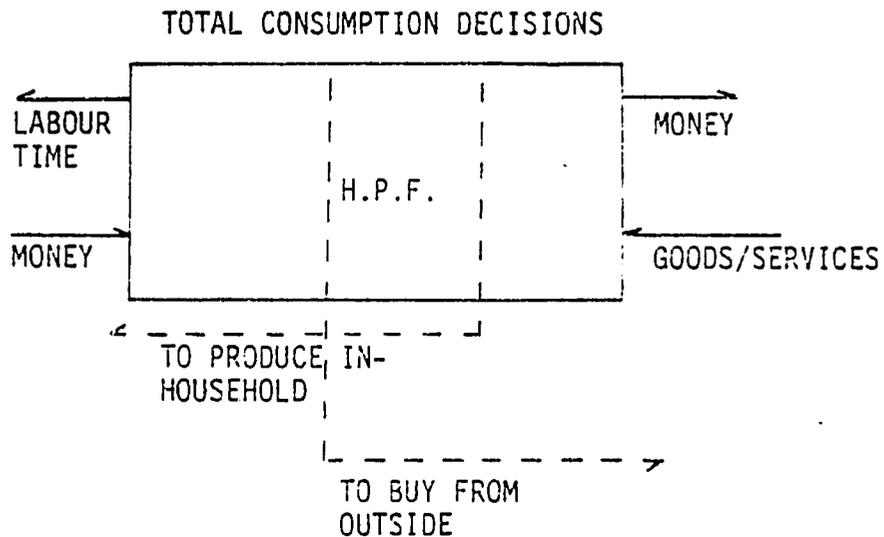
where Q = the quantity of output and x = the inputs. These include labor, materials, natural resources, and cash supplies. Production in the household is the result of decisions made in the allocation of these resources. The theory behind it is, therefore, basically a theory of allocative behavior, and output can be material or non-material. See Chapter 3 for a full discussion of how this theory can be applied to the household. Also see Schultz, 1974.

In the original formulation of this theory, which was developed to fit the case where money was derived from outside the household by the employment of members in paid activities, the choices between time and money corresponded with the trade-offs between in-household and non-household use of time. Production of goods or services in the household represented the use of time in-household, as against its use outside the household to earn money for the purchase of consumer items. All the household production, in this formulation of the theory, would be related directly to the consumption decisions; that is only the things which the household needed or wanted would be produced.

In the African case, this is not so, because of the large amounts of in-household production of goods for sale in the typical African farm household. Trade-offs between time and money can therefore take place within the household in this case, and are not coincident with the in-household and non-household uses of time. This makes the choices that face the African family-household members more complex than anticipated in the original theory.

Figure 10 is devoted to the basic theory, and illustrates the household production function as a trade-off between production and consumption decisions, shown as a

FIGURE 10



H.P.F. = HOUSEHOLD PRODUCTION FUNCTION.
(IE. RESOLUTION OF PRODUCTION (FOR USE)
AND CONSUMPTION DECISIONS)

TRADE-OFF ZONE BETWEEN PRODUCTION-CONSUMPTION
DECISIONS (TIME V. MONEY)

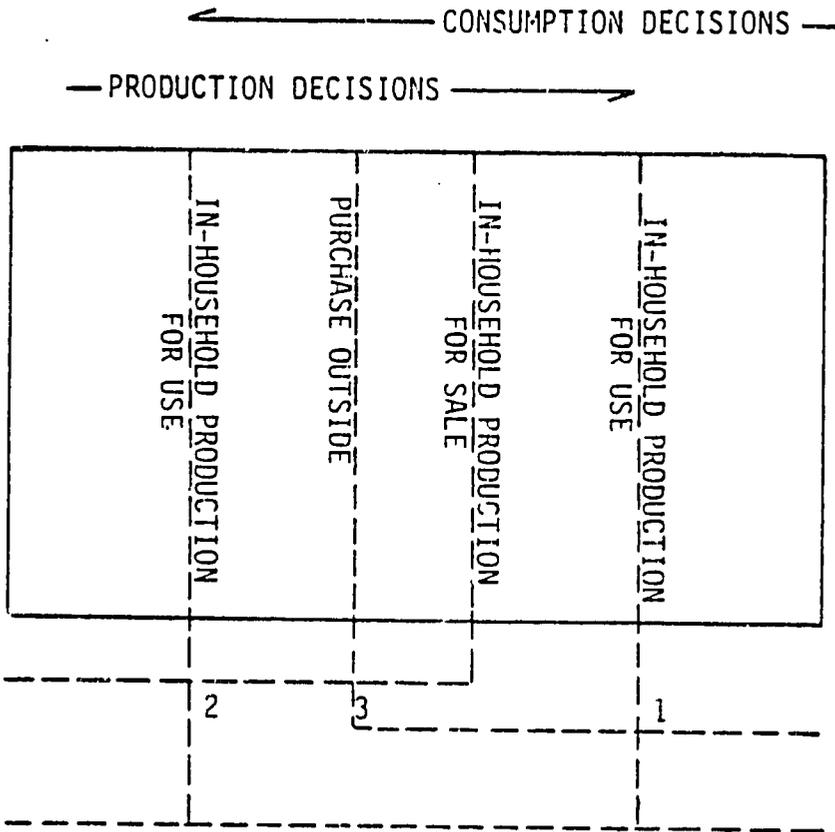
COMPONENT 6:
BASIC MODEL SHOWING OVERLAP OF PRODUCTION AND
CONSUMPTION DECISIONS IN HOUSEHOLD WHERE
TRADE-OFFS BETWEEN TIME AND MONEY CORRESPOND TO
TRADE-OFFS BETWEEN IN-HOUSEHOLD AND NON-HOUSEHOLD
(MARKET AND NON-MARKET.)

zone between decision making fields in the diagram. The boundaries of the two fields of production decisions and consumption decisions are shown as dotted lines to indicate that they represent movable positions and that the fields are overlapping. Inputs and outputs are identified. On the one side, the decision to produce things in the household is shown to involve an input of time and an output of goods and money (saved). On the other side, the decision to purchase is shown to involve an output of money to bring an input of goods and time (saved). Goods in both cases can be said to include services.

By moving the boundary of the field of production decisions to the far right, absorbing all the field of consumption decisions, the case of pure subsistence livelihood (theoretical) would be illustrated. By withdrawing this boundary to the far left in the diagram, the case of total dependence upon wage labor and the satisfaction of consumption needs by purchase would be illustrated. The African situation is, therefore, that shown in the diagram (Figure 3) (Chapter 3) though the positions of the two boundaries is, of course, arbitrary.

Figure 11 introduces the concept of sub-fields within the major decision making fields. The diagram shows the overlap of total production decisions and total

FIGURE 11



DOTTED LINES REPRESENT MOVABLE BOUNDARIES OF DECISION-MAKING SUBFIELDS.

3. TRADE-OFF ZONES ... OCCUR WHERE FIELDS OVERLAP.
- 1) ORIGINAL H.P.F. (PRODUCTION FOR USE AND PURCHASE TRADE-OFF)
 - 2) BETWEEN IN-HOUSEHOLD PRODUCTION FOR USE AND FOR SALE
 - 3) BETWEEN IN-HOUSEHOLD PRODUCTION FOR SALE AND PURCHASE

COMPONENT 7:

BASIC MODEL 6 WITH ADDITION OF SECOND AREA OF DECISION-MAKING IN PRODUCTION DECISIONS.*

* (TRADE-OFFS BETWEEN TIME AND MONEY DO NOT CORRESPOND TO TRADE-OFFS BETWEEN IN-HOUSEHOLD AND NON-HOUSEHOLD. THEY ALSO OCCUR WITHIN.)

consumption decisions, but within this area, dotted lines represent movable boundaries of decision making sub-fields, decisions to produce in the household for consumption being distinguished from the decisions to produce in the household for sale.

Three sub-fields of decision making are now identified:

- a) those related to production for use in-household;
- b) those related to production for sale in-household;
- c) those related to purchase from outside the household.

In the diagram, two positions are shown for the boundary of the first of the sub-fields in order to indicate explicitly that it can overlap with each of the other two: but, to assist in clarity of exposition, only one among the many positions is shown for the two others.

Three trade-off zones are derived from the overlap of these sub-fields of decision making. These are:

- a) between decisions to produce for in-household use or to buy from outside;
- b) between decisions to produce for in-household use or sale;
- c) between decisions to produce in-household for sale or to buy from outside.

The first zone represents the original trade-off zone associated with the household production function concept, as illustrated in Figure 10.

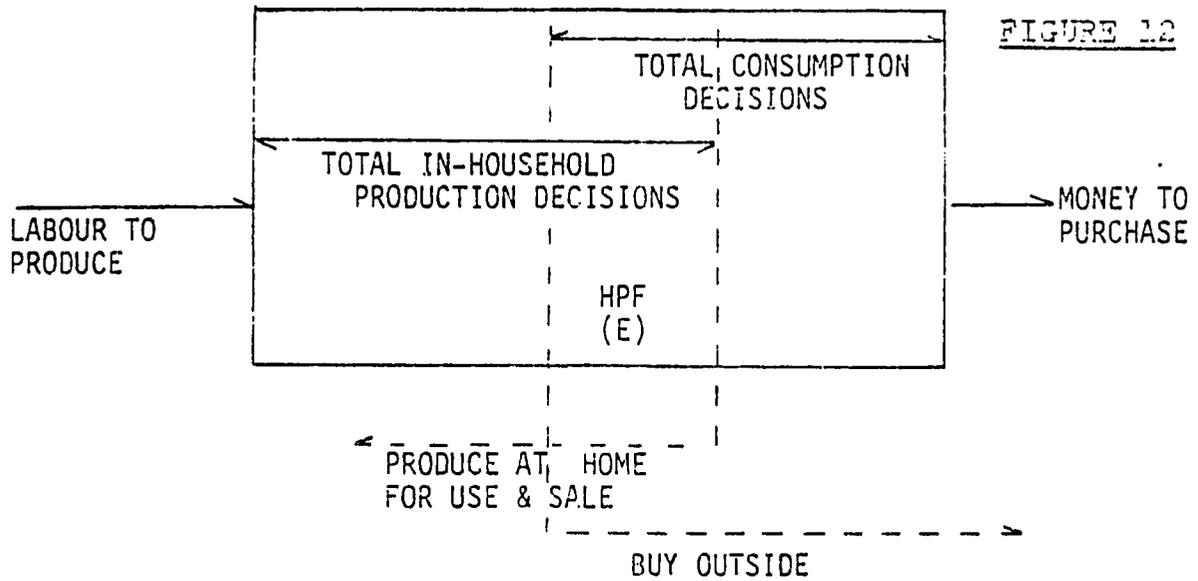


FIGURE 12

EXTENDED HPF = OVERLAP OF PRODUCTION - (FOR USE, FOR SALE)
CONSUMPTION DECISIONS. (TRADE-OFFS.)

COMPONENT 8:

OVERLAPPING PRODUCTION AND CONSUMPTION DECISIONS IN FAMILY-HOUSEHOLD
WHERE PRODUCTION INCLUDES PRODUCTION FOR SALE.*

*(MODEL 7 SIMPLIFIED TO GIVE EXTENDED H.P.F.)

The situation illustrated in Figure 11 describes an area of choice that is obviously wider than that illustrated in the original case. Time may be used to produce things in the household or to produce the money from outside which will allow for the purchase of consumption goods and services. Time may be substituted for money by its use in the household to produce goods and services for home consumption. Time may be substituted for money within the household by its use to produce goods and services either for sale or for consumption. Time may be used to produce money within the household by the production of things for sale, or it may be used to produce money from outside the household by outside employment.

Stated in this form, the inputs into the household production function are time and money. A further modification is required for the African case where natural resources are available to most households as non-purchasable goods, and these assets can enter into the household production function either simply, or, like time, converted into money or goods. No modification of the model is required to meet this condition because all inputs can be taken in the same way into the production function and considered in relation to the various sub-fields of decision making, but the point has to be recognized in terms of using the model.

Figure 12 restates the idea of the household production function in African terms. An extended household production function is derived by including production for sale in the household to the original field of production decision making which included only production for use in the household. The overlap of total production decisions, comprising both of these, with consumption decisions, defines the extended household production function, which thus translates into a larger trade-off zone than that derived from the original household production function.

Figure 13 takes this concept of the extended household production function, and moves on to provide a diagram in which the decision to produce money by working outside the household is made explicit, and not only implied by the use of money to purchase things from outside, as shown in Figure 13. In Figure 14, this is shown as a separate decision making sub-field.

Figure 14 therefore brings a different perspective to bear on the decision making of household members, making more explicit the decisions that can be made between in-household and non-household uses of time and money. The internal decisions about production are subsumed in this diagram, and an external trade-off zone in which work decisions may be affected by consumption wants is indicated.

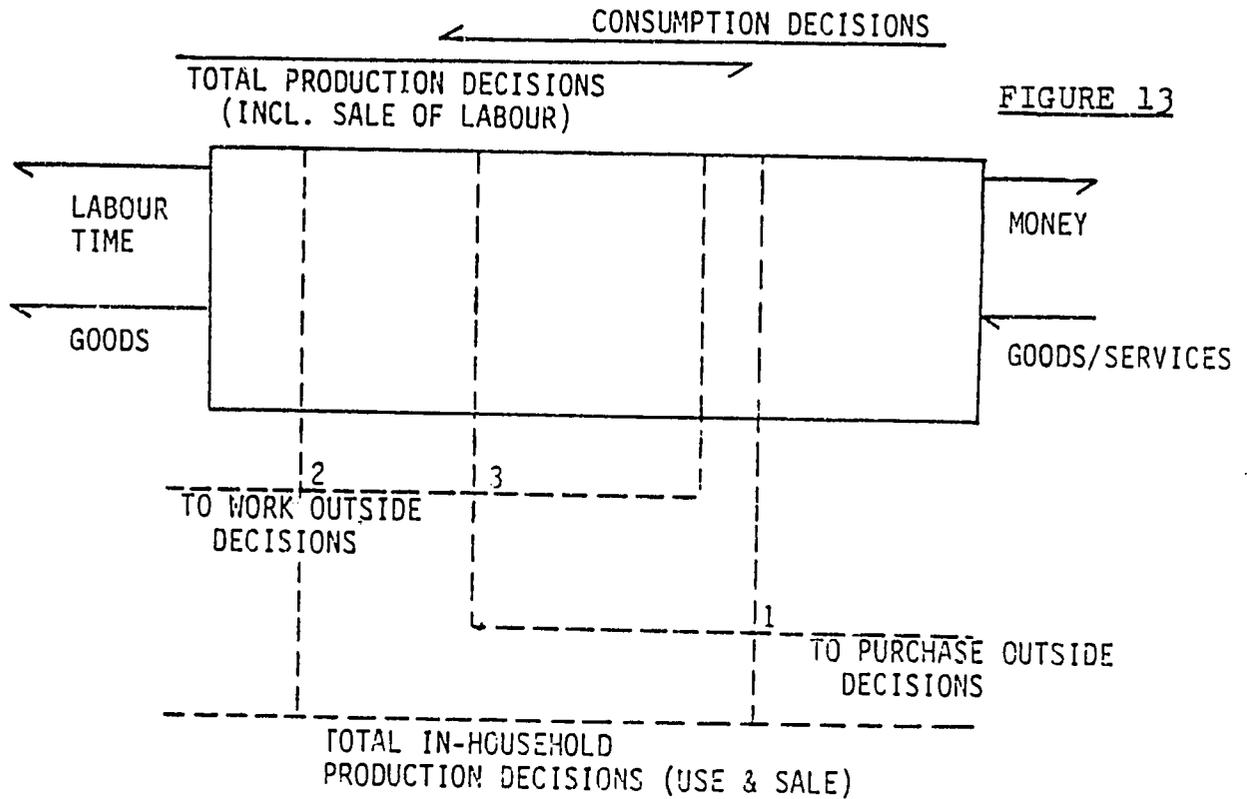


FIGURE 13

DOTTED LINES REPRESENT MOVABLE BOUNDARIES OF DECISION-MAKING FIELDS.

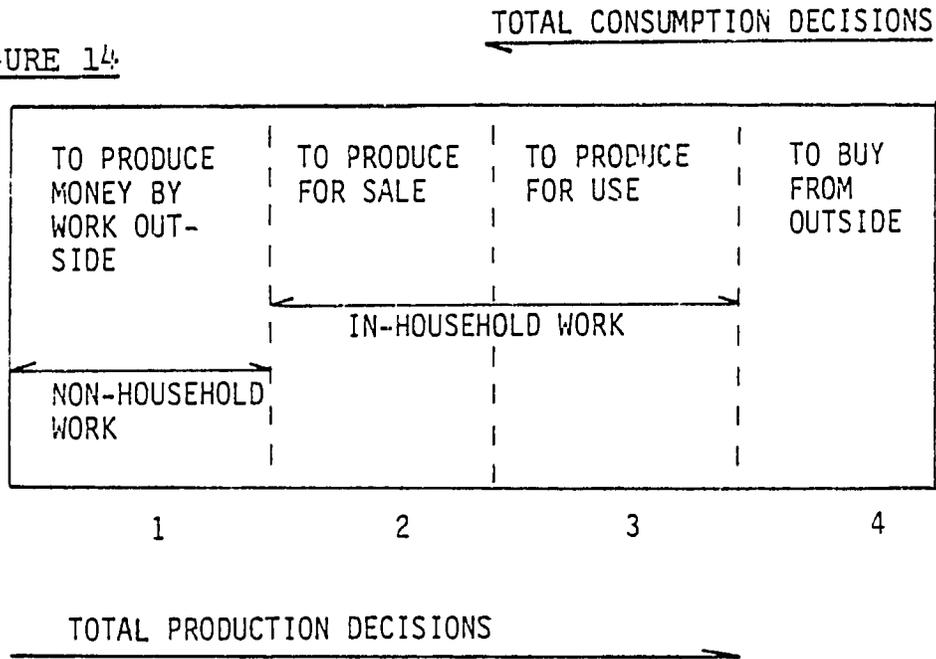
3 TRADE-OFF ZONES WHERE FIELDS OVERLAP.

- 1) BETWEEN IN-HOUSEHOLD PRODUCTION (SALE-USE) AND PURCHASE
- 2) BETWEEN IN-HOUSEHOLD PRODUCTION (SALE-USE) AND WORK OUTSIDE
- 3) BETWEEN WORK OUTSIDE AND PURCHASE OUTSIDE
(WORK DECISIONS V. CONSUMPTION WANTS)

COMPONENT 9:

THE MODEL SHOWING OVERLAP OF DECISION-MAKING FIELDS RELATED TO PRODUCTION AND CONSUMPTION WHERE SALE OF LABOUR TIME IS MADE EXPLICIT. DECISIONS RELATE TO IN-HOUSEHOLD VERSUS NON-HOUSEHOLD USES OF TIME AND MONEY.

FIGURE 14



FOUR OVERLAPPING SUB-FIELDS OF HOUSEHOLD DECISION-MAKING,
SEPARATED FOR IDENTIFICATION.
(NON-HOUSEHOLD = OFF-FARM } WHERE TERMS ARE APPROPRIATE
(IN-HOUSEHOLD = ON-FARM }

COMPONENT 10:
FOUR OVERLAPPING SUB-FIELDS OF PRODUCTION AND CONSUMPTION
DECISION-MAKING FIELDS. LIVELIHOOD STRATEGIES FIT INTO
SUB-FIELDS ONE TO THREE, SEEN AS WORK IN TERMS OF TIME
ALLOCATION.

Three sub-fields of decision making are demonstrated to illustrate the in-household versus the non-household uses of time and money, (and other inputs). These are:

- a) those related to in-household production for use or sale (extended household production);
- b) those related to work outside the household;
- c) those related to purchase from outside of consumption wants.

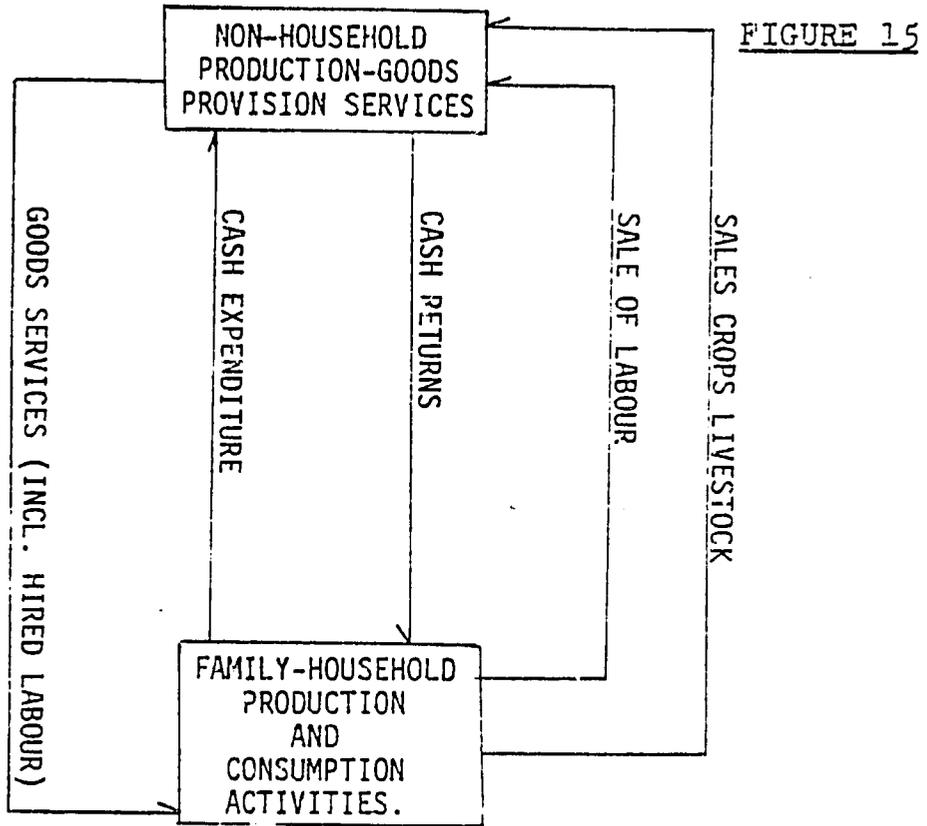
Dotted lines indicate the movable positions of the boundaries among these overlapping sub-fields.

The overlap of decisions in these three fields produces three trade-off zones, which are:

- a) between decisions to produce in-household (for sale or use) or to buy from outside;
- b) between decisions to produce in-household (for sale or use) or to work outside;
- c) between decisions to work outside or to purchase outside (or forego consumption).

In Figure 13, therefore, the notion of overlapping decision making fields is used to illustrate the way choices may be made not only in the household but in terms of the relations between the household and the outside economic environment.

Figure 14 takes yet another perspective on the family-household's decision making, by using the same concept of overlapping decision making fields and trade-off zones related to them, to bring in the way that the livelihood strategies of household members can be seen in these terms. Livelihood strategies are represented by the allocation of



COMPONENT 11:
RELATIONS OF FAMILY-HOUSEHOLD TO EXTERNAL ECONOMY.

time to the various production activities, constrained by the factors which are related to the consumption activities.

The focus on time and labor allocation is a personal interest and the conceptual framework expressed in Figure 14 and can be used to examine, equally well, the rationale for the inputs of other household resources such as natural resources, money, or purchased goods and services into the various production and consumption activities.

This basic conceptual framework of trade-off functions operating in respect of overlapping decision making fields can also be used to examine the rationale for decisions made at different levels in relation to the production and consumption processes. There are sub-divisions to be made within the sub-fields. For example, decisions are not only made between the various production and consumption activities, but also within the sub-fields. Thus within the sub-field of decisions to be made about in-household production for use, there are decisions to be made concerning the types of crops to be grown, the balance to be struck between herding and cultivating activities, or the choice of inputs into these various activities.

In Figure 14 the two major fields of decision making are broken down into the four sub-fields relevant to the African case, and these are separated for the purpose of

identification, so that their overlap is indicated only by the dotted boundary lines. The four sub-fields are:

- a) those decisions related to production for use;
- b) those decisions related to production for sale;
- c) those decisions related to the sale of labor time or work outside the household;
- d) those decisions related to the purchase of goods and services.

These are the four sub-fields established in the development of the last three components of the model.

Inputs of time, money, natural resources, and purchased goods and services are made into production and consumption activities through a decision making process related to trade-offs among the sub-fields.

If the inputs of time or labor allocation are separated from the other inputs it can be shown that the three components of work strategy open to the members of the African family-household fit into the first three sub-fields of decision making and, importantly, are related to all the trade-offs that can be made among the four sub-fields. Such trade-offs may be made on the basis of decisions relative to the inputs or on the basis of decisions having to do with the relative factors in in-household and non-household work. This last set of factors can also be restated as market and non-market, or as on-farm and off-farm, and this depends upon the appropriate situation

and the purposes of the researcher.

The Relations between the African Family-
Household and the External Economy

So far, the inputs and outputs of labor, cash, and goods, to and from the African family-household production and consumption unit have been shown in the diagrams simply by arrows entering and leaving the household. In Figure these flows are shown as being circulatory between the household and its external economic and social environment. There is an exchange which takes place in respect of some or all of these items between the economy of the household and the larger non-household economy, and the ways in which this occurs depends upon the precise economic situation of the household.

The diagram in Figure 15 shows all external production of goods and services in one box and all the family-household production and consumption activities in another. It is obvious that to purchase goods from outside the household, or to pay for services, the money which is spent has to be earned. The diagram simply illustrates this fact.

Labor must leave the household to engage in paid work, or goods must leave the household to be sold. Goods in this case are usually crops, livestock, products made from or derived from crops, livestock, or other resources, including natural resources which, as explained earlier,

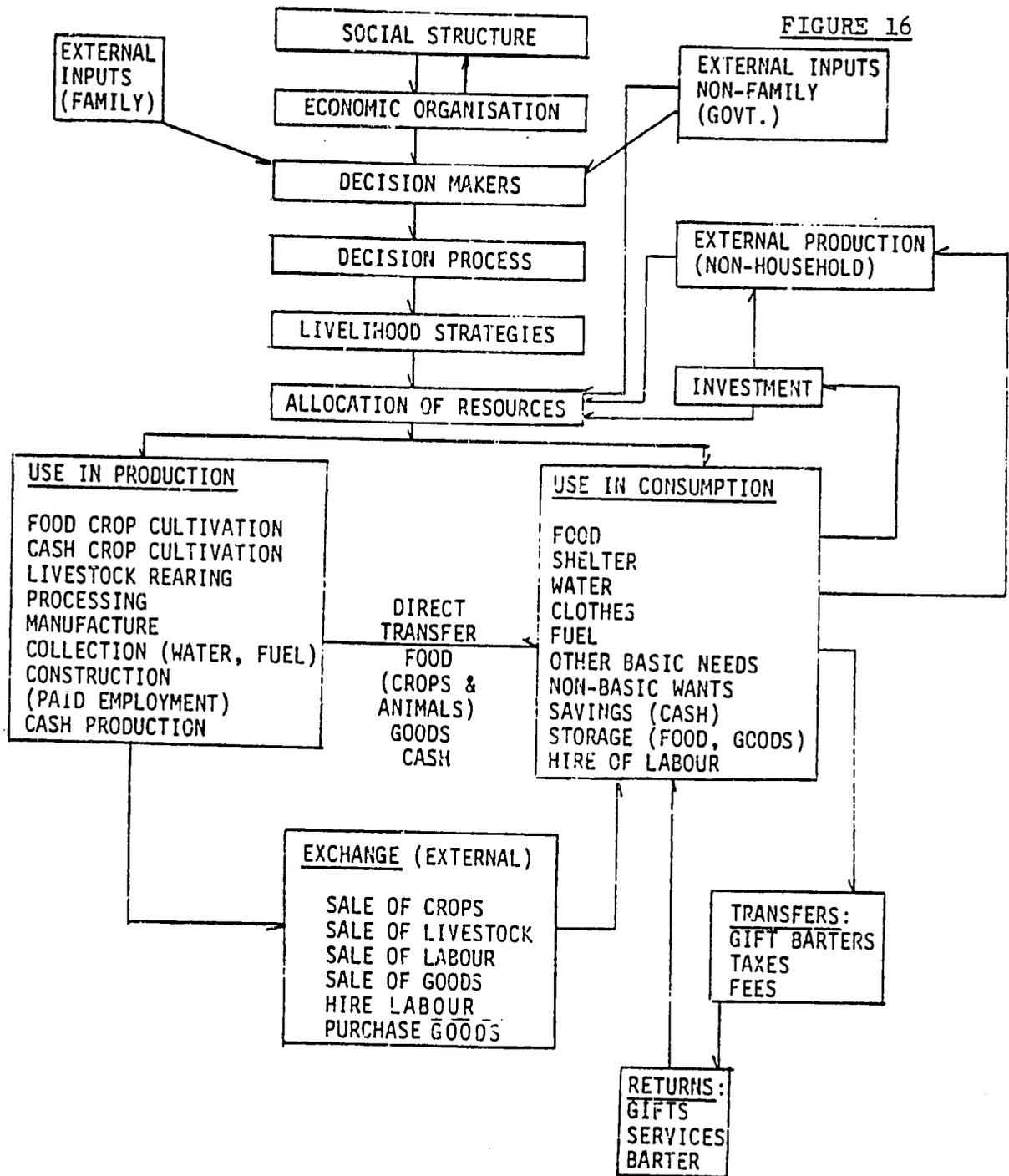
can be included as non-purchasable inputs into the African household economy. Cash must also leave the household to pay for the inputs.

The return flows to the household consist of the purchased items, the goods and the services including the hired labor, and the cash generated by outside work and the sales from the household.

Making the circulatory flows between the household and the external economy explicit, brings attention to the fact that the household economic organization is part of an open system, and that consequently the economic behavior of members can only be analyzed satisfactorily in these terms.

A Synthesis of the Behavioral Model of the African Family-Household

The diagram in Figure 16 pulls together the components of the model. It demonstrates how the African family-household (defined as an open economic system containing a number of sub-systems) is itself a sub-system in a larger economy. This larger economy consists of regional, national, and global economic systems, but for the purposes of this model these are collapsed into one category, that of a non-household or outside economy. These larger systems in the hierarchy do not form nested



COMPONENT 12:
A SYNTHESIS OF THE AFRICAN FAMILY-HOUSEHOLD ECONOMIC SYSTEM-EXTERNAL RELATIONS.

categories but are linked in various ways to each other through the movements of labor, cash, and goods. The African family-household is seen as related to the larger system in the same way, by the inputs and outputs to and from the household of labor, cash, and goods.

The rationale behind the domestic economies of African family-households is, therefore, seen as being related to both the allocation of resources within the household and between the household and the larger economic system and particularly to the ways in which these interact.

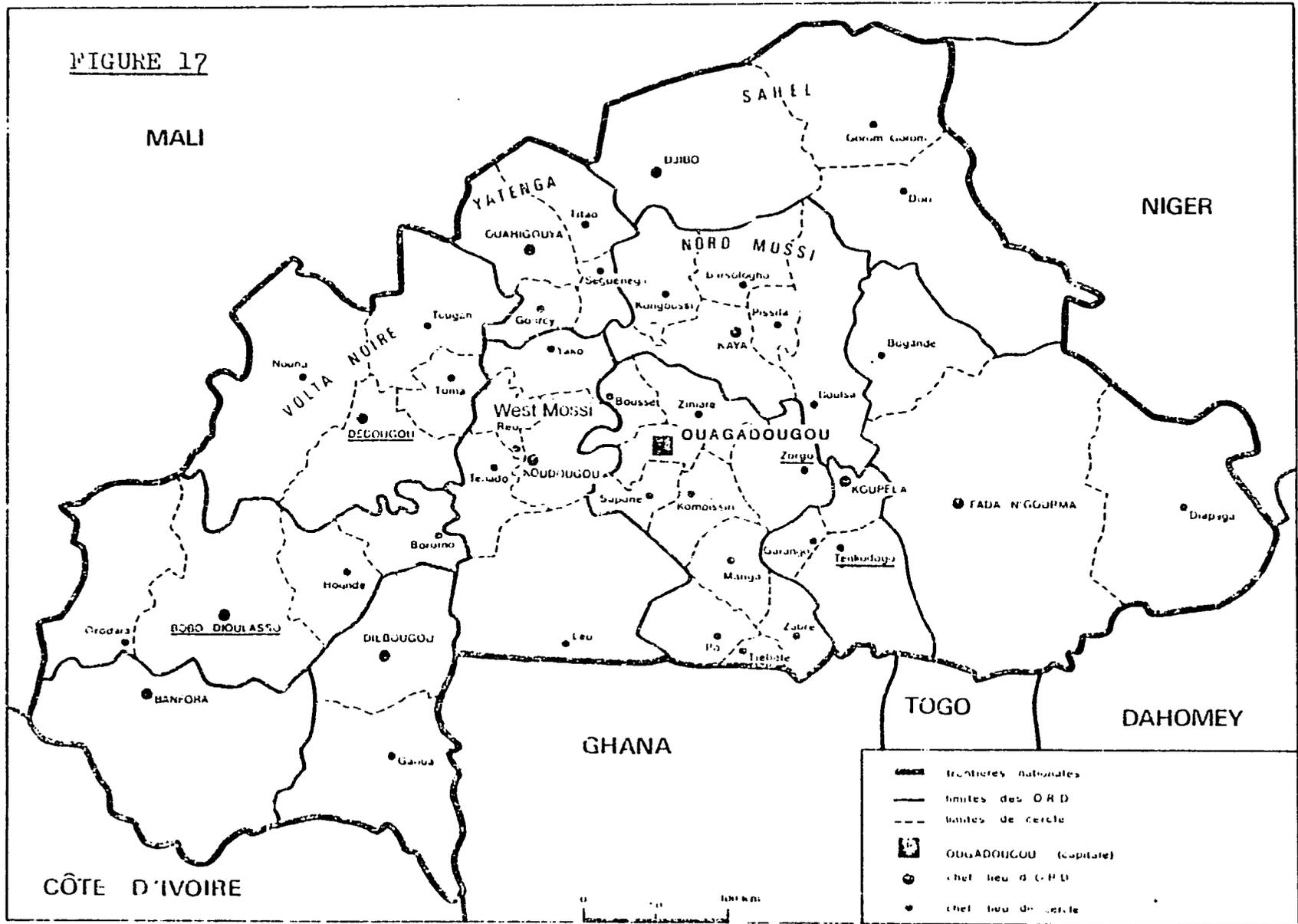
CHAPTER 5

MOSSI FAMILY-HOUSEHOLDS IN UPPER VOLTA: APPLYING THE MODEL

The Mossi are a large, distinctive, group of people whose indigenous homeland is known as the Mossi Plateau. Altogether they number about two and a half million people and make up about half of that country's population. They are not confined territorially to the plateau, nor is the plateau exclusively their preserve, though because of their numbers they tend to predominate. Their indigenous culture has been much studied and their present poor economic plight has led to many official inquiries into their circumstances. They have been the target group for a great many development schemes. Because of this, there is a substantial body of data relating to them, which is useful in the present context (Figure 17).

They are often described as "sedentary farmers" in official reports, but few Mossi households can support themselves from farming alone. Most of them have members who are migrant workers in the Ivory Coast, Ghana, or Benin, or even overseas in Europe, and whose remittances

FIGURE 17



enable the household group to maintain its farming base. It is estimated that each year some 450,000 people, mostly from the Mossi group, leave Upper Volta to find work in the coastal regions of West Africa to supplement poverty-level farm incomes.

The farm incomes, however, are not in all cases simply subsistence incomes, for many households grow some cash crops, cotton or groundnuts in some regions and fruits and vegetables where there are urban markets. Like most African family-households, Mossi households gain their living from a mix of activities and the utilization of different kinds of resources. Cash incomes have been a part of this livelihood pattern over a long period of time.

To understand how Mossi family groups make a living, it is no longer enough to know the details of their indigenous domestic economies, because Mossi family-households have evolved in relation to sixty-four years of French colonization and over twenty years of independence under what is now the Republic of Upper Volta.¹ Differentiation

¹The Mossi came under French rule in 1896 and the first economic impact came with the imposition of taxes, levied first on the chiefs in 1899 and later made general in 1903. In 1904 Mossi country became part of the colony of Haut-Senegal et Niger, and was later incorporate into the colony of Upper Volta in 1919. This colony was disbanded in 1932 because it was insolvent, and the planters

among Mossi households and the breakdown of many inter-household family connections that were the basis of indigenous economic organization has been a major effect of the changes brought about by colonization. Today there is no one simple way to describe how a Mossi family-household is ordered and how it gets a living. There is

of the Ivory Coast lobbied to have Mossi country attached to the Ivory Coast so that they would have unrestricted access to Mossi labor. Mossi chiefs had been forced to recruit labor both for private and public enterprises even before this time, and Albert Londres who visited French West Africa in the 1920's wrote that Upper Volta was a "reservoir of manpower: 3 million Negroes. Everyone comes here to get them as one would go to wells for water. For the building of the Thies-Kayes and Kayes-Niger railroads, the Mossi were tapped. For the railroads of the Ivory Coast, Mossi country is tapped..." (Albert Londres, Terre d'Ebene, Paris, 1929: 126, quoted in Skinner, 1965: 64). Recruitment of labor was finally stopped in 1946. The colony of Upper Volta was re-created in 1947, and became an independent country in 1960. Although forced labor had been stopped, the Mossi had by this time fitted a pattern of seasonal migration into their traditional agricultural economy and this is still continued today in addition to longer stay migration. The system has become institutionalized and is now part of the normative economic system of Mossi families. It has had profound effects upon the social organization of the society and upon its agricultural practices and patterns of work.

Before their conquest by the French, the Mossi people, who constitute the largest ethnic group in Upper Volta, had an effective polity that was based on four separate kingdoms. The hierarchical social system remains and the chiefs and elders retain considerable power, though their alliance with the French administration in the past, and their conflicts with educated politicians at present, leads to some uncertainties in their current position.

no longer a "type ideal" (Mesnil, 1970). This is because change has been differential and because people have moved or dispersed from their home areas.

Mossi family-households have many different forms, different bases of support, different relationships with each other and with other groups of people, such as the Fulani whose economies have been tied in with those of the Mossi for a long time by an established tradition of exchange, and they have different ties to national and larger economic systems. They do, nevertheless, retain much that is useful to them of their indigenous culture (Skinner, 1974).

There is, then, no one logic to the resource use patterns of Mossi family-households, and it is in this context that a research model can be used. The model provides a framework, as stated in Chapter 4, for seeking the answers to the following questions: Who makes decisions about resource use? How are decisions made? What are decisions about in practical terms?²

²This is not an attempt to provide an ethnographic description of the Mossi people. It is only an attempt to set out how the research model of the African family-household model might be used to find out how the Mossi family-households today use their resources to get a living.

Social and Economic Organization

Both the ways that Mossi households are formed and the ways in which they are organized still depends very importantly upon specific kin relationships, although the traditional patrilineal family group no longer operates in the way that it used to in pre-colonial times. Most households have a male head of household, and the fact that many households are polygamous means that there is a variety of kin to be found in them. Specific responsibilities among kin are reflected in the household's composition; thus siblings, children of siblings (especially sisters' sons, the "yagense"), and mothers, all have claims to belong.

While kin factors are very significant in the household's composition, as explained in the model in Chapter 4, this does not mean that traditional norms of behavior remain intact. In fact, the opposite is the case.

Kin relations alter in significance as economic change proceeds and affects the balance of power and influence among the members of the household and the larger family. The actual situation in a family household group is often a mix of old and new forms of behavior and relations among people. Often the lack of correspondence now between the older kinship terms and the expected

behavior that goes with them (Bohannon, 1966) leads to changes in form of address or reference.³ Status differences between kinsmen now come about through occupational differences, and alter the former patterns of relationships. Despite these changes, it is the social and kin networks that household composition and organization depend on.

Among the Mossi the household has become the essential focus for the individual today, and although important functions are still retained by some of the traditional authorities, the household has an increasingly independent identity both as a production unit and as a consumption unit (Marchal, 1977; Delgado, 1979). The different types of family-household found among the Mossi people today are polygamous households, joint-fraternal households, extended family-households in the sense of three or more generations membership, and other types of multi-kin groupings.

This mix of different kinds of households has taken the place of the large patrilineal group based on a shared

³Skinner (1974: 440) writes:
Often the lack of correspondence between kin terms and expected behavior leads to changes in forms of address and reference. Most of these changes are conditioned and sustained by residential dispersion, differential occupations and incomes, and differences in education, interests, and associations among relatives.

residential compound that was characteristic of the indigenous culture, and today Mossi family-households are more varied in both composition and organization than they were before the French colonists disrupted their economies. Today the Mossi family-household is based on different patterns of social and economic relationships, some of which relate to the indigenous culture, some of which result from new factors in family relationships, and some of which involve older ties with new significance attached to them. Most Mossi family-households are best described as "multi-kin" households, for they frequently consist of more than one wife and husband and bring together numerous other kin.

Although the composition of the household and consequently the relationships among the members have their origins in social factors, there is no reason why an analysis of how the household uses its resources should not proceed from the economic side of the picture.

Identifying the Economic Sub-Groups and Decision Makers

If the composition of the Mossi family-household is more varied now than it was in the past, the economic organization of it is equally so. To understand this organization for each household, it becomes a question of identifying who the resource managers are and which resources

they control, own, or use. It means looking at how the tasks of the household are organized and how responsibilities are assigned or taken over. It means identifying who the subordinate workers in the household are, and what parts they play in resource use. It means identifying which members invest cash resources in the household and what the significance of these investments is. It means finding out how many dependents there are in the household and what is the relative proportion of workers to dependents. This is significant in terms of the household's labor supply. The number and type of hired workers in the household would need to be known. In Mossi family-households, these factors vary greatly from place to place, from household to household.

Resource management used to mean land management and labor organization when the domestic economy was based predominantly on farming. Land was acquired from the lineage elders whose job it was to see that all male members of the lineage had land for their own subsistence and that of their dependents. Once allocated, however, the rights to land use belonged to the head of household. The household was the primary functioning domestic unit, and inputs to it came from larger kin groups to whom the household had reciprocal obligations. In the model, these exchanges are made explicit as exchanges between the

household and the family environment (See Chapter 1).

Although this distribution of land (and redistribution in response to life-cycle changes) was based on need, there was competition for land resources even before the effects of colonization began to be felt, and the elders in the system were able to exercise considerable power through their control of the land resource. Land could then only be acquired either through inheritance or through "borrowing." The elders could, and often did, put the welfare of their own immediate dependents first, favoring some sons over others. When this happened, younger sons might appeal to their mother's lineage for land, or get permission from the chiefs to clear new land. In some cases they might ask for land from outside their own lineage groups, and this was usually granted in return for gifts made to the owners which established the relation as one of temporary usufruct (Skinner, 1964; 1974 and Hammond 1966).

The mandatory growing of cotton and groundnuts as cash crops, and the forced migration of workers to the coastal regions of the French colonies between 1912 and 1947, disrupted both the farming system and the social system.⁴ Land is still the hold which the family-household

⁴Although the livelihood systems of the Mossi families were radically changed by the French, the traditional

has over its members, but the collective support from the land is now less in terms of day-to-day living.

Although land can be purchased today in some areas it is still largely through inheritance or "borrowing" that it is acquired by most households, so that the elders can still use their control of the land resource for their own advantage or to control the group in many places. Where Mossi families have moved onto settlement schemes this pattern is disturbed, and the question of land rights becomes a major issue not only between lineage groups but among households.

An organizational chart of a Mossi family-household today, which related the social and the economic roles of its members, would include the following categories or sub-groups, though the interrelations of the sub-groups would vary according to the nature of the particular household.

Each household member has both a social and an economic role in the domestic organization and the relationships between the one and the other are complex. The chart given in (Appendix 5) relates the social

political organization existed until independence, with the four kingdoms of Ouagadougou, Yatenga, Tenkodigo and Fada-N'Gourma.

roles of head of household, elders, adult men and women, and children, to their economic roles as managers, workers, investors, advisors, and dependents.

Head of Household

The head of household used to be the most important decision maker in the Mossi family-household. Once land had been allocated to the household by the lineage elders, the rights to its use lay with the head of household, who in this case was usually the senior male, either a father or brother to the younger men of the group. The rights to use passed from father to eldest son. Since land was the major resource under the indigenous systems of livelihood, the head of household was then the most important resource manager in the household. Besides distributing rights to use land, he also organized the work activities of the group. All adult men and women were expected to take a share in these collective activities which involved work on communal fields of cereals, though they each had the right to pursue independent activities once these obligations had been met (Skinner, 1965). In a limited way, therefore, adult workers in the household were also resource managers, since they had personal plots of land to cultivate as they wished and could sell the produce.

In return for these accepted obligations on the part of household members, the head of household was duty bound to take responsibility for the organization of the household's food supply, to supply bride wealth and to pay taxes. He was ultimately responsible for the welfare of all his dependents; in the large households of the past this would have included his wives and their children, his younger brothers and their families, and the families of his children.

Today, the head of household seldom has the same degree of authority because access to new resources other than land means that his position as the most important resource manager in the household may get taken away. There are fewer large patrilineal households based on a shared co-residential compound today, and so the particular position of the head of household is one which varies according to the form of the household and the nature of its livelihood system.

In some cases the head of household retains considerable power and authority as the holder of land use rights, whereas in other cases the household itself may have become "economically a set of sub-units" held together by the common investment in land and in the security offered by the kinship network (Galetti, 1956). In yet other cases

a coherent strategy has emerged whereby the old and the new resources are combined.

Kohler (1972) cites instances where the expenses of young men wishing to go away to work in the Ivory Coast or Ghana are paid for from household funds in order that they may contribute their share to the household income through paid work rather than farm-work where cash is needed to pay the taxes and for other important expenses. The migrant workers are expected to maintain a regular contribution in these cases, and they usually return at the start of the agricultural season in April or May, leaving again after the millet harvest in October or November.⁵

There is sometimes an element of social conditioning attached to this household strategy, in which the young are initiated into manhood and gain prestige through their departure for work in the Ivory Coast or other places away from home (Skinner, 1964, Rouch, 1956, Gugler, 1969).

⁵Much of the migration is seasonal, with the men returning for the start of the agricultural season in April or May and leaving again after the millet harvest in October or November. Skinner estimated that about 20 per cent of the migrants stayed away longer than this and suggested that among their reasons for doing so might be failure to achieve financial targets, for it would be a disgrace to return empty-handed (Skinner, 1965).

While most Mossi migrants recognize and fulfill their obligations to the family-household group, they also control more of their own earnings than they would if they were under the immediate control of the head of household and the elders (ORSTOM, 1975). This means that even where a coherent strategy exists, the control exercised by the head of household is less complete than in the past.

Another form of Mossi family-household, which has evolved through response to economic changes, is the polygamous household in which the household head has organized the work and resource use pattern to take advantage of both urban and rural resources. This seems to be a fairly common pattern where one wife is left in a rural or peri-urban farming area with her children, while another wife is brought to town. The produce from the farms will usually serve to supplement the food supply of the whole household on a regular basis. The wife or wives in the town may be charged with looking after the children of the family so that they may attend school (Skinner, 1974).

Where joint-fraternal households exist today, different economic relations and responsibilities depend upon whether the younger brother or brothers work for the elder one, and whether the household is based on farming or represents shared security against the poverty of the

town.⁶ Resource management in Mossi households no longer is controlled by one head of household who makes all the important decisions.

The Elders

The elders in the family-household who have high status and importance in household decision making, often exercise their power in a competitive way for their own advantage. This works in a number of different ways. In the first place they may use their control of the land to

⁶Skinner 1974: 96-97 writes:
There is a definite relationship between habitation and kin relations among the various occupational categories in Ouagadougou. Where cultivator household heads host younger unmarried brothers, the nature of their relationship is usually a function of occupation. Where the unmarried brothers are cultivators and work for their brothers, commensality is the rule. Where the young cultivators do not work with their elder brothers, they seldom share the evening meal with their hosts. Nevertheless, in both cases, the young men contribute to the economy of their host's households. This may include bundles of faggots for fuel and gifts of produce and money earned during the dry seasons. The hosts and their wives do not view these gifts as payments for services received and continue to support the young men during periods of unemployment and financial embarrassment.

Where a young married cultivator shares a compound with an elder cultivator brother...there is little formal cooperation... The brothers keep separate granaries (for the most part they cultivate their individual plots)... They cooperate in their living arrangements but are quite distinct social entities.... Schoolboys who live with their elder brothers make no monetary contributions to the household budget...they are often clothed and fed by these relatives.

enforce their decisions on the group. In the second place they may use their control of land to get for themselves the more fertile fields, often those nearest to the household dwellings which are regularly manured. Thirdly, they can retain land for their own use beyond the time when it should normally be redistributed to their unmarried sons for them to take wives and set up their own families. The temptation to hold on to the best lands and to retain land longer than has been sanctioned by custom among the group is all the stronger where lucrative cash cropping is possible. Kohler gives a number of examples of this practice and evidence of its results in the Koudougou region in the western part of Upper Volta, one of the cotton growing regions (Kohler, 1972).

He points out how, in Upper Volta, the young men complain that they have to wait too long to get land of their own because the elders keep land for themselves. He quotes a study of the social and economic causes of migration which points to the conclusion that it is not simply poor returns from farming which lead the young to seek work abroad but the fact that profitable cash crop farming does not benefit the generation that is involved in the migration movements, since it is the older men who retain the use of the best cotton and rice lands.

Kohler (1972: 35) writes:

...les flux migratoires ne sont guère déterminés par les niveaux de l'agriculture de rapport dans les diverses régions. Les hommes qui vont travailler en Côte d'Ivoire sont presque aussi nombreux à Pilimpikou, dans la subdivision de Samba qui produit beaucoup de coton, qu'à Sabou, où la production cotonnière est dérisoire - on compte 15% d'absents à Pilimpikou, contre 16% à Sabou. Cela est non seulement dû au fait que les cultures de rapport n'assurent aux cultivateurs de l'Ouest Mosi que des revenus très bas et irréguliers, mais également à ce qu'elles sont sous le contrôle des aînés et ne profitent donc pas directement à la génération qui alimente les mouvements migratoires. Les terres les plus propices au coton et les rizières sont en effet toujours exploitées par les aînés.⁷

Marchal (1977: 81) writes of a similar situation in the north near Ouhigouya:

The young seek to escape the authority of the elders for various reasons. The desire for economic, social, and proprietary independence...

⁷Translated into English this reads:
...the migration flows are not simply determined by the variations in agriculture from region to region. The men who leave for work in the Ivory Coast are as many from Pilimpikou, in the subdivision of Samba which produces a lot of cotton, as from Sabou, where there is very little cotton production--they account for 15 per cent of those absent in Pilimpikou as against 16 per cent in Sabou. This is due to the fact that it is not simply poor and irregular returns to cash cropping for the west Mossi which cause this but equally the fact that the returns are to the elders and do not benefit the generation that swells the migration movements. The lands which are the most suitable for cotton and the rice lands are in effect always cultivated by the elders.

the corollary to an ever worsening agricultural situation, emphasizing the inequality of the distribution of resources between the elders and the young; in particular the land in the immediate vicinity of the village remains in the hands of the elders.

He notes that this is not new and quotes an observer writing in 1917 that "in location where the land is good, it has already been completely taken over by group leaders or family heads" (Marchal, 1977: 76).

The elders not only were able to control land resources, they were also able to control people, goods, and services. They used these resources and their positions of power to obtain wives for themselves, which, under the traditional Mossi social system, was accomplished by "pugsiure," a system in which household heads and lineage elders "gave" and were "given" daughters as wives, maintaining in this way close ties between families and ensuring more progeny for the elders, increasing their power and standing. The ability of the elders to secure wives also meant that they could do so for their male dependents, thereby, giving them more power over the young.

The ability of the elders to make such traditional marriage arrangements today is weakened but not lost entirely. Young men have more resources of their own and more opportunity to find wives for themselves, especially in the towns where they can trade as well as cultivate

their small plots. However, families can still place their daughters in plural marriages and chiefs and fathers in the rural areas still send daughters as "pughsiure" to husbands in the towns.

The Workers

Workers can be subdivided as a category according to whether they are mainly employed in the household or whether they work outside it (i.e., in-household, or absent workers), though many in Mossi family-households may work at different times of the year in both capacities. Another important distinction is between family and non-family or hired workers.

Among family workers the divisions of responsibility still seem to be based importantly upon sex, with different tasks falling to men and women. This means that both in the past and continuing today there are areas of decision making which are separate provinces, so that there are in a sense separate "production managers" as well as separate kinds of subordinate workers in the household.

Since the patterns of domestic organization now vary so much, there is no one descriptor that is valid for all Mossi households; however, the women tend to keep much of the responsibility for growing food crops, food processing, the collection of wood and water, and other traditional

tasks, especially in the rural areas. Under the indigenous social rules a woman was expected to supply a share of the family's food supplies from her land, in return for the fact that land came to her from the head of household.⁸

The produce from her own land was otherwise hers to dispose of, to use or sell, except for this obligation. Male workers in the household also had their own personal plots to cultivate for their own use.

The activities of both men and women were directed in the past on the communal (extended family) cereal plots, but in many households today there is more individual choice. Men tend to gain the advantage in cash cropping, but women often get cash from marketing small amounts of

⁸ Many African women are responsible for productive or income producing activities which go beyond the performance of daily domestic tasks. Many are farmers, producing much of the family's food supply on their own plots of land. Others are involved in trading as well as farming, and in processing food or crafting items for sale.

Many women have been deprived of their rights to land for farming under resettlement schemes organized by agencies who ignored the traditional economic arrangements of people and set up a "western" model of male farmers and subordinate wives. A report from Upper Volta states that where women who have moved onto the settlement schemes of the A.V.V. (Autorite des Amenagements des Vallees des Voltas, or Authority for the Management of the Volta Valleys) in the areas cleared of onchocerciasis under the West African Onchocerciasis Vector Control Program, they complain that they were not allotted their own personal fields as had been customary in their home villages. (FAO Economic Development of Areas Freed from Onchocerciasis in Dahomey, Ghana, Mali, Togo and Upper Volta, 1975).

their own produce (vegetables, spices, etc.), selling goats or chickens, and also selling cooked food, sometimes regularly to migrants on the well known migration routes.

Children in Mossi households help the adult men and women in their work in less sex specific ways until they reach the age of about ten or twelve years, when they may take on tasks specific to men and women. Some new jobs fall to them also as a result of economic changes. Delgado (1979) reports how children from Mossi families are sent to the Fulani cattle corrals to collect manure in woven baskets, now that manure has become a valuable resource in areas where there is a market for fruits and vegetables.

Among family workers there tend now to be fewer men than women in the household since more male than female workers go away to work in paid jobs. Older children are also lost to the household's labor force when they are sent to school.

Hired Workers

Hired workers sometimes make up for the shortages of labor in the family-household. These hired workers often include kin who belong to other households. Children of poorer households may work for richer households. Sometimes family members who are working in urban areas may

assist others with farm work at the weekends in return for a share of the produce.⁹

High ranking officials in Ouagadougou often send to the rural areas of their homelands for people who are described in reports as "dependent kin" to work their peri-urban farms and keep all of them supplied with basic food staples. Skinner (1974: 51) describes how this is a basic part of the family economy:

(They) view their peri-urban or rural farms as a source of basic staples for their families and only secondarily as a source of income from the sale of produce...relatives or friends settled on these farms are not given a fixed salary. Instead they are given sums of money periodically, provided with money for taxes, and given such gifts as bicycles and clothing. These relatives may also consume as much of the food produced as they need and cultivate their own crops, which presumably they do sell for cash.

In other cases, rural kin may be sent for to "help about the house" and in some cases this means giving a relative a status which would not be expected or accepted in the home region. Skinner quotes the example, in this connection, of the children of a wealthy civil-servant in Ouagadougou who were embarrassed that their father's

⁹Skinner reported that in 1974 young boys in Ouagadougou could be hired for farm work for a going rate of 100CFA a day (\$1 = 250CFA).

sister was working in their house as a servant, a position of low status for such a kin relation (Skinner, 1974).

Dependents

Those who are the dependents in Mossi family-households are, as in most African households, the old and the sick, for whom no other provisions are generally made outside the family, and very young children who have not yet reached the age at which tasks are assigned to them.

School children are also dependents, and urban households, especially those in the capital of Ouagadougou and in other large towns, are likely to contain more school children than rural households. They may include the siblings of the founders of the household as well as their own children and the children of their siblings.

Among the Mossi a special responsibility attaches to a man's sisters' sons, and the relationship is designated with a special term in the More language "yagense." It is noticeable that there are many more sisters' sons in the households of the wealthy in Ouagadougou than there are in the households of cultivators in the town area or of petty traders, suggesting that the relationship is one that is much used for economic advantage. Rural relatives are more likely to press for the continuance of kin relations with those in the town than the other way around,

except for the town dwellers' sense of security that land is available to be claimed in the home region where houses are sometimes built to establish this claim.

Temporary or semi-permanent dependents in urban households also include young people looking for jobs. Again, the relationship known as "yagense" may be used to justify claims for support. Another group of dependents particular to Mossi households are mothers who have special claims on their sons when widowed or left abandoned.

Other dependents in Mossi households might include non-family members who are recipients of charity. The most important group of these today are the Koranic pupils of Moslem teachers whose wives are usually expected to take up their share of work.

Absent Workers

Absent workers are the chief investors of cash into Mossi family-households. It is their remittances which generally pay the household tax bill (Kohler, 1972). Other investments are often in cattle, still entrusted by their owners to Fulani herdsmen except in a few areas where the milk and manure have become more valued and where the household may want to keep the cattle near their fields in portioned-off pockets of land (Marchal, 1977). Investments are also made into education through the paying of

school fees which it is hoped will, in turn, channel resources into the household from the recipients' well-paying jobs in the towns.

Not all workers make regular or significant contributions to the household, but the fact that over 80 per cent of them make regular return visits to their home areas suggests that this is a general pattern for Mossi family groups (ORSTOM, 1975). Also, the fact that most Mossi men are found in a recent survey to have migrated to the coastal regions for work at some period of their lives, supports the conclusion that migration is part of a life-cycle livelihood pattern in which migrants eventually return to take up land when it becomes available (Kohler, 1972; ORSTOM, 1975).

Much of the migration is seasonal during the course of the year with the migrants returning to the household for the agricultural season from April through November, so that a part-time element has to be recorded for Mossi households when checking on in-household and non-household workers.

Not all households welcome an individual member's wish to migrate for work if the household is particularly short of labor, and conflicts can arise over this or about the timing of departure. The absence of young men is

especially felt in the early months of the year when the hard work of land clearing and preparation has to be done. Another peak period for labor demand is at harvest time in October, a time when land also has to be made ready for the cash crops in cotton growing regions.

It is always difficult to get precise figures about the amount of cash brought or sent home by migrant workers, but Delgado gives an estimate that it amounted to one-third of the total "income" or support of a village called Zorgho in the southeastern area. It is more than just a supplement to most Mossi family-households who, even in regions where cash crops can be grown, depend also on migrants wages to keep up living standards at very low levels.

Migrants do not contribute such a large amount of support to their home areas in all parts of Africa, but the Mossi family-households depend upon these contributions in a critical way. Speaking of the poorer Yatenga Mossi in the northernmost arid parts of Upper Volta, Marchal (1977: 85) describes it this way:

...and one fact must be acknowledged: agriculture no longer ensures the survival of the population; the coffee and cacao plantations of the Ivory Coast today form an integral part of the lives of the Ouahigouya Mossi.

Absent workers also include those who have paid work in places nearer to the home base, and Kohler notes how the proportion of young men in the age group 15-34 who are totally absent from their homes for a period during the year is much less in semi-urban regions where presumably paid work is more easily available to them.

External Obligations

The obligation to aid relatives is still a strong remaining part of the traditional Mossi social organization. It can involve loans of cash, or manual help in the house or on the farming land, or the exchange of useful information and services. Most people get their jobs through the social network and the intervention of relatives. Co-wives are expected to help each other, and brothers' wives may be called on for household help if needed in temporary emergencies. Traders keep in touch with rural kin so that they can get produce to sell, bought cheaply in the rural areas. Payments are often made to mothers, but not to fathers since they might give money or gifts to other wives.

Economic Behavior and Decision Making in Mossi Family-Households

In Mossi family-households today there is seldom a single resource manager who commands and organizes the

family group. Consequently, whether the household is viewed as a production unit or as a group of consumers, there is no single decision maker acting on behalf of the household. There is no single goal of profit aimed for by the producers, no objectively defined utility wanted by the consumers. Neither is there a consensus type of decision making in which, to use the economist's phrase, a "common utility" is assumed. The fact is that the Mossi family-household constitutes a group which has its own internal dynamic, that is reflected in its decision making, and that this internal dynamic is one which varies with the composition, organization, and circumstances of the household. The goals associated with resource use in the family-household include both group and individual goals, as well as goals which differ among the various groups in larger households. These goals are, in all cases, subjectively defined and affected by changes that take place both inside the household and outside it.

The Variables in Mossi Family-
Household Decision Making

Decision making in Mossi family-households today reflects four important variables. These are:

- a) what remains of indigenous cultural patterns of authority and responsibility;
- b) the new authority and power that comes from the ownership and control of new resources;

- c) the "dialectic" between the older and younger members who have goals and perceptions of choices that are different from each other;
- d) the relations between the group and the individual, the degree of cohesion in the household.

What determines the particular decision making pattern in any one sample household is the balance among these various forces. Such a decision making pattern is never static. Like all organizations, the family-household goes through semi-planned, self-modifying processes of change that have their origin in both internal and external causes. The patterns that are observed, therefore, are time dependent and subject to change.

Changes of this kind do not indicate a simple move from communal to the individual. There was much room within the traditional arrangements for individual purpose and action, while today there is a still strong commitment to the family and to maintaining the family-household group.¹⁰

What determines the particular arrangements and relations between the individual and the household group

¹⁰See Hammond, (1966) for a description of individual proprietorship and communal work on farmlands among the Mossi of Yatenga, Hammond, P., 1966 Yatenga,: 73.

See the Inquiry on Mossi Migration, O.R.S.T.O.M., 1975, for comments on continuing family commitment.

today is the balance of forces between the old and the new, in terms of both the social and kinship relations of the members and in terms of the access to old and new types of resources.

Divisions of responsibility and the management of complex sets of resources, sometimes including two or more bases for family activity, have been old established and characteristic features of Mossi domestic economies, representing strategies for living and sometimes even for survival. New resources get taken into this pattern and become part of the system, but at the same time, their introduction can often pressage changes within the household, altering the balance of power. While authority and status within the household were traditionally based upon age, sex, and generation, with the senior males thus having the most prestige and the most control over the use of resources and the organization of work, today there can be new status qualities such as wealth, education, occupation, which can be recognized to give younger family members "seniority," even to the point where the kinship terminology is altered to match the change in relationship (Skinner, 1974).

Nevertheless, there remains in most cases a coherent basic pattern of commensality based upon the ultimate security of the land resource and the unity of the family

household, within which these changes are operative. Only rarely does an individual resign temporarily from the household, still less permanently, though those individuals who spend a long period away will develop greater control over their resources and stay away for this purpose. More commonly, there develops a life-cycle pattern of activity in which the younger males in the household are expected to migrate for work in the coastal regions to bring in the needed cash revenues for the family group, while the elders keep control of the land resources, organizing the farm work which provides the subsistence grain crops of millet and sorghum, and controlling the cash revenues from the cash crops.

Migration away for work plays a regular part in the livelihood strategies and resource management patterns of most Mossi family-households, and whether the going away of individuals represents cooperation as explained earlier, or whether it involves conflict depends upon the particular circumstances of the family group. Both conflict and cooperation have been observed (Kohler, 1972).

Where in some cases the young may have been pressured to go and their expenses paid for by the family, and where in some cases they have been squeezed out by lack of access to land resources, they often spend only part of the year

away to help with the planting, cultivation, and harvesting of the food grains. Both migrant and family benefit and there is, therefore, in these family groups a basic coherent strategy for livelihood, even though the generation, control, and use of particular resources may be divided among different individuals. Some of the very poor family-households, in the Yatenga region for instance, may depend upon this coherent strategy for their survival where cash crops are non-viable and where there are few who have access to livestock wealth to pay their taxes and supply their cash needs.

The reward to the returning migrant worker in the poorer regions may be little more tangible than the soothing grant of a prestige status at home, that is denied him in his workplace where migrants are often at the lowest point on the social scale. For the migrants whose home is in the better central or west-central regions of the Mossi Plateau, the rewards will be a share in the land and the security of some family support as they grow older, when in their turn they will expect to succeed to some of the better fields near the villages which were denied to them in their youth.

There are other households which are poor in labor resources but which have land enough to maintain a meager

subsistence and a few cash crops where the migrant's wish to leave for better paid work in the coastal area may cause a conflict with the group if the family sees its need for labor at home to be more important than the acquiring cash from a long distance. Young men in these circumstances have to save their expenses stealthily by selling goats and chickens, and have been described as stealing away in the middle of the night (Kohler, 1972). The family group may want to assure a less advantageous but also less precarious existence than that promised by the absence of its members. Skinner noted that in some regions where land is sufficient, there is a correlation between the growing of cash crops and food grains, rather than competition; and this may have to do with the availability of labor for the one being availability for the other, especially if, as is often the case, cash crops such as cotton are interplanted with the food crops (Skinner, 1965).

In summary, there is a balance of forces between individualism and group solidarity in Mossi family-households today, which changes with circumstance, over time, and from place to place. To understand how these issues are resolved in any one family group, the behavioral model can be used to examine the goals, values, internal and external constraints on decision making of

both the group and the individuals which compose it. A diagram (Table 21) sets out some examples to show how this operates.

Decision Making Process

To understand how process operates in Mossi family-households, following the behavioral model, is to understand that it is on-going, that goals can be revised, aspirations (and expectations) altered, and that new information can be fed into the decision making process, whether this concerns the individual or the group. For example, household members who have worked away, in the coastal regions of West Africa, bring back new ideas and new information on employment conditions, salaries, and living standards, as well as tangible goods and money. Also extension agents of the agricultural service bring new information to those who are engaged in farm work, which these workers have to evaluate for themselves in their own terms (Mesnil, 1970). What lies behind the preferences expressed by the farmworkers is part of the research objective.

The inputs to the decision making process will also vary from one household to another, and in the case of Mossi households will include varying degrees of attachment to the patriclan and the lineage group as well as

TABLE 21

Examples of Group-Individual Strategies among Mossi:
Balance of Forces Determines Nature of
Family-Household Organization

Group	Individual
<u>Goals</u>	<u>Goals</u>
Maintenance of family and household Retention of land rights Improve living standards through multiple resource use and deployment of family labor effectively to get both cash income and home-based food supplies.	Personal profit Personal prestige Escape family authority and obligations Limit involvement with family
<u>Values</u> Strong cultural, social commitments to family groups.	<u>or</u>
<u>Con- straints</u>	Contribute to family Depend on family security Help maintain obligations.
<u>Internal</u> -aspirations limited by tradition, lack of knowledge - <u>External</u> - lack of farm opportunity - lack of local employment - established work patterns migration.	<u>Values</u> Either individualistic and non-conforming or sympathetic to family.
	<u>Con- straints</u>
	<u>Internal</u> - aspirations channeled by habit - <u>External</u> - family group pressures limited opportunity for cash

differing relationships with the neighboring Fulani herds-
men. They also include differing inputs from government
that have varying degrees of regularity and importance.
Where family-household groups have moved onto the settle-
ment schemes these latter inputs will loom large, elsewhere
they may amount to very little or none.

Constraints

The external constraints on the decision making pro-
cess are those which are environmental in the full sense
of the term. They are, in another sense, the context in
which decisions are made.

The behavioral model suggests, however, that the ways
in which these constraints are perceived and evaluated
varies with the individual or group agent or decision
maker, so that the ways in which particular constraints
operate upon the household's decision making varies. In
other words the field of choice is perceived subjectively.
Cultural, social and personal values will affect this per-
ception. An important value of a behavioral model is that
the researcher views the constraints upon the Mossi family-
household in terms of its own subjective evaluation.¹¹

¹¹This need is pointed up by a reference in a recent
paper by John Cleave entitled "Decision Making on the
African Farm" in which subsistence food production is
mentioned as the cause of the "inefficient allocation of

There are many constraints which the outsider can perceive, such as the climatic and geographic limitations on farming possibilities, the economic limitations of restricted job opportunities within the country, the lack of adequate cash to invest in improved farming methods that are presented to the farming households, and many others. How these factors weigh in consideration of resource use in any one family-household is a matter for inquiry.

The present resource use patterns that are observed have evolved in relation to constraints that have put pressure on land availability and led to deteriorations in land quality. Both the farming and social systems of Mossi households have been progressively changed through the early imposition of forced labor and the compulsory growing of cash crops under French colonial rule, and they have continued to be affected by the results of these factors and new factors of changes that have occurred since.

resources," a suggestion that the goals of the farm-household are not being recognized as important (World Bank Reprint Series: Number Ninety Two, 1977).

The idea that the "family," meaning the household, can be treated as a homogeneous decision making unit "for ease of exposition" in studying the interdependencies of the farm-household also blacks out a very important element in the decision making process, that is the dynamics of the household group.

Production and Consumption Decisions
in Mossi Family-Households

When the households of Mossi families were essentially locally based, the decisions about what to produce and what was consumed depended to a large extent upon the opportunities afforded by that locality for satisfying family needs. The traditional food grains that were produced were millets and sorghums, with some maize and groundnuts. Spices and vegetables added flavor to the diet and were generally grown by the women on their small plots. Small amounts of cotton were grown to provide family clothing. Goats and sheep were kept to provide milk and, occasionally, meat for the diet. Cattle were owned by some households and entrusted to neighboring Fulani herdsmen in a practical system of exchange by which in return for the use of Fulani pastures and labor, the Mossi paid in milk and manure from the cattle which was retained by the herders. The household economy varied with wealth and status within the Mossi kingdoms of the past, but it was very similar in its essentials for living.

The limited resources of the plateau with its fairly poor gravelly soils and uncertain rainfall were utilized by the Mossi in a careful husbandry which depended on social discipline to maintain the land resources through

fallows and to cooperate in collective work tasks to ensure the family's food supplies. Inter-household cooperation was high and the patriclan was an important economic unit as well as a social one, combining the workforce of a number of households into one work unit for these critical communal tasks. Consumption needs were the basis for production activity in what was essentially a subsistence-based economy.¹² This has not been the case now for many decades. Both the farming systems and the social systems have been profoundly altered by the forced migration of men to work in the coastal regions of the French colonies between 1912 and 1947, and by the mandatory growing of cash crops such as cotton and groundnuts.

Today the opportunities offered by the local farming base of the household are only part of the explanation for the production and consumption decisions made in it. Whether or not cash cropping is a viable or profitable option depends upon where the household is located to a large extent, but other occupational and social factors complicate the picture.

¹²This means that most of the food was produced locally, not that the system was a closed one for the Mossi traders exchanged livestock and cloth for salt and kola nuts and other products. (See Meillassoux on indigenous trade and markets in West Africa, 1971).

The production and consumption decisions taken in today's Mossi family-households will certainly be related to the groups' land resources, but the size and composition of the household, the occupational pattern of its members, the degree of coherence existing in its organization, and the ways in which the household uses its cash resource will all be important variables. In general, all decisions about production and consumption are more varied than they were in the pre-colonial past. There are more things to make decisions about now that families put together an "income" from such a variety of sources. This putting together of an income 'package' generally results from the need to use as many support opportunities as possible when families are poor, but there are other families, who, because they are larger and have more assets, can combine a number of valuable income sources. These families often gain an advantage by making the most of both rural and urban occupations. Their economic organization and consequently their economic decision making can be correspondingly quite complicated.

Common Factors in Domestic Economies Today

In the model (Figure 8) the resources of the family-household are allocated to the various areas of production and consumption which are listed under the following

headings:

- a) production for sale;
- b) production for use;
- c) employment for cash;
- d) welfare consumption;
- e) exchange (trade, barter, gift giving);
- f) savings (including storage, investment);
- g) external obligations (social and enforced).

These divisions are common to all Mossi households. Most households produce much of their food by crop cultivation, most have some type of production for sale, varying from small amounts of surplus food crops (or other commodities) occasionally brought to market, to the regular cultivation of cash crops, mainly cotton or groundnuts but increasingly including vegetables and rice near population centers. Nearly all families have members in paid employment, either in the towns of Upper Volta or in the coastal regions of West Africa.

In terms of the welfare component of the model, consumption does not vary greatly in terms of the major items. Most households depend upon the traditional food grains of millets and sorghums. Maize can be important as an early season food crop, valuable when last year's harvest is already used up, and rice is beginning to be part of the diet in wealthier family-households.

Other items in the household diet are vegetables, which include onions, beans, okra, fonio, yams, cowpeas, tomatoes, groundnuts, and other legumes, and spices to flavor the food. Milk from goats and sheep, meat from chicken, guinea fowl, goats, sheep, and (very occasionally) from cattle also form part of the diet. Sometimes fish is caught and used for food. Millet-beer made from red sorghum is an important consumption item. Many families now purchase some of these food items, along with other important consumption items such as clothing which used to be made in the household from cotton--grown, carded, spun, and woven, in the household by the members. Tobacco was another important consumer item and is still grown by some households.

Exchange in the past included barter and reciprocal gift giving as well as the purchase of goods by the exchange for money, and elements of these practices remain strong in some families.

The savings of the household may include those held in the form of livestock, cattle, horses, and donkeys, as well as cash savings, and they can also include stocks of grain or other stored items. Investment, considered here also as a form of saving, is very often in the form of

livestock, but it is also often represented by the education of the younger family members. Sometimes investment can take the form of inputs into agriculture but these improvements are often made with caution.

External obligations today generally mean paying taxes, collected by the canton chiefs, but they also include the payments of bride wealth upon marriage and other traditional dues. In the past, they included tributes paid to the nobles and Mossi chiefs.

In Figure 9 these sets of activities are reclassified under the two major headings of production and consumption activities. Both decisions about production and consumption are then broken down in this part of the model, into more specific categories.

Production for use includes not only the growing of food crops and the rearing of livestock but also includes the collection of important items of household consumption such as water, wood for fuel, forage for animals, kapok, tamarind, shea nuts, mangoes, and other tree products. It also includes processing, such as grain milling, grinding of spices, preparation of dyes from indigo plants, beer making, and the cooking of food. The crafting of items in the household such as clay pots, ropes, baskets, rope beds, and tools, also come under this heading. Construction of houses and other large items belong in this category. In

the context of this model, employment in paid work is seen as producing cash for the household, while the rearing or ownership of livestock may produce either cash or food.

Consumption decisions, in this context, are seen to include all savings and investments under the heading of deferred consumption, and the welfare component is here subdivided into food, water, shelter, clothing, fuel, and other basic needs and wants. Other items under the heading of consumption which use up resources from the household "budget" are education and other investments, and the expenditure of hiring labor. What are called non-basic wants in this model are clocks, watches, radios, bicycles, and mopeds, things which are seen as important assets in Mossi households today.

Reordering these types of activities, in production on the one hand, and the categories of needs and wants in consumption on the other, in the model, allows us to see how they can be considered separately from the point of view of decision making.

Inter-household Variation

As stated above, the major divisions made in this model are much the same for all Mossi households, and even the details of the production activities and consumption patterns vary very little. However, the resources of

family-households vary a great deal, and so the actual resources of some households may be very much greater than those of others. The volume of cash crops, for instance, or the value of cash remittances and wages, or the ability of the household to grow enough food grains, show a large amount of inter-household variation.

Some of this variation is explained by the different geographic and ecologic circumstances in which the various family-households get a living, especially in the location of their farming bases. In other ways they are related to the occupations and social status of household members. In any one household, these factors are closely interrelated.

In general, the further south one goes on the Plateau, the more options families have to pursue for their livelihoods, partly because the northern regions are the most arid and have the most irregular rainfall, but also because the main population centers are in the south and this means better access to the opportunities afforded by the urban areas. Mossi households which everywhere depend upon the combining of these rural and urban resources have more chance in the southern part of the country to profit from both.

Those families whose home base is in the poorer regions of Yatenga in the northern part of the Plateau

find the farming part of their livelihood precarious, with famine a constant threat. In 1973 international food aid had to be sent to this region and there was an out-migration of whole families (not just migrant workers) to the southwest, and even far away to the Ivory Coast.

In Yatenga the soils are impoverished; the climate is semi-arid with long dry seasons and very irregular rainfall. Arable land is scarce, and the population is dense for the kind of extensive, low yielding agriculture which is practiced there (70-100 inhabitants per square kilometer in a space consuming, low yielding agricultural system). Cash cropping was introduced by the French but the commercial production of cotton and groundnuts was never successful, although it was compulsory to grow them, which only made the land shortage worse. Production activities in this region, therefore, are largely restricted today to the growing of traditional food grains, as far as agricultural production is concerned. This means millets and sorghum and a little maize and groundnuts, and other small crops needed for the household. Production here is then largely production for use, with a few sales of groundnuts being made when these are not needed for food (Marchal, 1977).

There has been an increased interest in livestock rearing by some families, and this represents a more

profitable investment. The old established tradition by which cattle are herded by Fulani herdsmen for the Mossi farmers is still used, but the terms of the arrangement have been changed in some particulars. Mossi owners now demand that the cattle be grazed on their own fields after the harvest and kept near their own villages so that the manure can be used. Herders are provided with food and shelter in return but the Fulani are thus deprived of their customary rewards of cattle manure for their fields. Livestock are only an option for the ones who can afford them, the money probably coming from migrant's remittances. Even so it is estimated that 50 per cent of the proceeds from livestock sales go to the purchase of food and other provisions, and that another 25 per cent is used to pay taxes, so that this hardly represents much potential for the improvement of incomes and living standards (Marchal, 1977). The truth is that most Yatenga households depend upon the support they receive from migrant worker members to augment a meager subsistence farming. As Marchal emphasizes, farming no longer fully supports the economy of Mossi family-households.

Not all Mossi family-households have such an impoverished farm base, although everywhere on the Plateau the soils are poor and gravelly and the rainfall is inadequate

and too uncertain for rainfed agriculture to be anything but a hazardous undertaking. South of the Yatenga region the cultivation of groundnuts becomes viable and this is the main region for groundnut production in Upper Volta. These families have a surer source of both food and cash crops than those in the far north, but the groundnuts are only sold after food needs have been met, and most of the harvest is sold on local markets. The earnings from migrant members of the household may be less critical for survival here, but they are not less significant.

Still farther south, farming options increase as cotton can be grown here as a cash crop, while the conditions for the growing of food grains are also better. Cotton is a crop which has long been known to the Mossi and was interplanted with maize and millets and used to make cloth for the family's clothing. Much cloth is now purchased for this purpose, and the cotton is sold for a cash income. The commercial growing of cotton was introduced by the French to supply French markets. The work of the French-based parastatal company, the Compagnie Francaise pour le Developpement des Fibres Textiles (CFDT) has been the main promoter of cotton cultivation, and many of the development schemes in Upper Volta have been aimed at "modernizing" its production. While cotton provides a

more reliable and a better source of cash income than groundnut cultivation in most cases, the Mossi families who live in regions where cotton growing is feasible are no less dependent on migrants wages than any others, though their living standards may be higher.

Migration to the coastal regions for paid work is a way of life to all Mossi family-households and its magnitude has been increasing not decreasing. Altogether some 52 per cent of young men in the age group 15-34 are absent from their homes during the year. In some regions the proportion reaches 80 per cent (Kohler, 1972: 21). In the semi-urban areas this proportion is much less, presumably because paid work is available nearer home.

The place that cotton growing, migration and paid employment, food crop cultivation, and the cultivation of other crops and the rearing of small animals and livestock; plays in the household economy varies according to the composition and size of the household as well as in relation to the opportunities of the area. It varies also in relation to the way land resources of the household are controlled and to the way conflict or cooperation exists in their management.

The Interrelation of Production
and Consumption Decisions
in Mossi Family-Households

Like most African family-households, those of the Mossi people in Upper Volta are "multi-functional domestic units" (Hopkins, 1976). Their support comes from a mixed package of economic activities, and the households function as both subsistence and commercial production units, even though in some cases the commercial element may be quite small, so that decisions about production and consumption overlap in a very complex way.

Where households function simply as consumer units and income comes from work outside the household, the overlap of decisions to produce goods and services inside the household or to buy these from outside, represents a trade-off between time and money. In the case of Mossi family-households where money is earned from in-household production, as well as from outside the household, these overlapping fields of decision making include those which are contained within the household. To satisfy consumption needs and the deferred consumption represented by savings and storage, decisions in Mossi households involve trade-offs among four sub-fields of decision making: those concerned with in-household production for use; those concerned with in-household production for sale; those

concerned with work outside the household; and those which are concerned with the purchased needs and wants of the family group. Each field has its own rationality, but it is the factors of conflict or complementarity in resource allocation to these various fields which explain why certain choices are made and what the effects might be of introducing new elements into the total system.

Overlapping work timetables, conflicting investment choices, and the conflicts of different needs for food and cash are all related in the logic of the whole resource use system of the household.

This approach in terms of overlapping decision making fields is therefore complementary to the last approach in terms of the group relations for an understanding of the household organization and behavior. Each of the four sub-fields is now considered in turn.

Production for Use

Within this field of decision making, goals are defined by the consumption needs of the group and are related to their cultural values. In terms of food production this means that they are related to the preferred diet. Red sorghum, for instance, is rarely eaten, except for famine food. It is exchanged for millet, or used for beer making or as a cash crop.

In the past the household provided for most of its needs through in-household production, but today many articles are purchased and the most important goal of household production is the provision of food. The main staples are grains, millets and sorghum and a little maize in some regions. Vegetables and spices supplement this diet and goats and sheep are kept for milk and meat. Some collected items such as shea nuts add to the food supplies. Most of the processing of food is done in the household by the women members.

While many households now purchase some of their food requirements, including some of the poorest, who in fact may have to rely upon the "money for subsistence" (Kuper, 1965), it remains true that the major goal of home production is to achieve as much self-sufficiency in food production as possible. Even urban dwellers either get food supplies from rural family members wherever feasible or grow their own crops and keep their own small stock within the confines of the urban area. Indeed, a "significant proportion of active workers in urban areas is primarily engaged in agriculture" (USAID, 1980).

In-household production includes water and firewood collected to supply the household. It also includes the collection of forage grasses for animals. Food processing

and the production of items such as tools still goes on in the household. The goals of such activity may not be to save on the money for purchase so much as to ensure supplies in a traditional way.

Decisions and Economic Behavior

The food imperative can in some cases override all other considerations and, when this is so, conflicts in the allocation of either land or labor may be consistently resolved in favor of the food production strategies.

Farming practices in relation to food production are always risk minimization rather than maximum return strategies, which can often block the shift of resources to any kind of profit-making agriculture or livestock-rearing activity. Two examples from different parts of the Mossi homeland illustrate the practice of overplanting of food grains, which ties up all available land in the one activity, but at the same time is a rational approach to dealing with rainfall that varies from year to year in critical amounts, and from place to place in any one year. Overplanting represents a risk aversion policy to ensure an adequate harvest from a number of scattered plots or to even out the effects of the bad and the good years.

Marchal (1977: 80) describes the situation in Yatenga where the threat of drought is ever present:

...being unsure at each rainy season of reaping a large crop, the farmer increases his chances by sowing the maximum of plots, if possible scattered over widely separated areas with the hope that storms, often localized, would benefit at least a few of these fields...the fields impinge on one another and the farmers have made a desperate attempt to grow millet everywhere. What remains of the bush is subjected to fallow periods which become shorter and shorter.

The situation in Yatenga is made worse by the density of population in an area where the climate is so uncertain and where agricultural methods are traditionally space-consuming. An alternative land use could be for livestock forage, but the pressures to find cropland and the traditional strategies of entrusting cattle to the Fulani preclude large scale development at the present of this option.

Delgado explains in relation to another area how, before livestock can be introduced satisfactorily into the farming systems of the southeast near Tenkodogo, the question of improving grain production would have to be dealt with. He writes (Delgado: 331):

Given the high variability in millet yields between the different years, there is pressure on the farmer who wishes to be self-sufficient in food grain to plant a larger area than would be required in a year of average rainfall. This would ensure self-sufficiency even in years with poor yields.

Improving incomes or even improving investment in the land resource comes second to the critical need to ensure the food supply.

Constraints

Constraints on in-household production for use, mainly the growing of food crops in the case of the Mossi family groups today, can be both internal and external to the decision makers.

Among the internal constraints are such factors in economic behavior as the reliance upon traditional methods of land management, technology, and crop cultivation. In addition they may include low levels of aspiration, lack of knowledge of other opportunity, and the confusion of being presented with innovations that do not fit into the economic possibilities of their operations, as perceived by them.

Constraints of the external kind include climatic and ecologic factors, mentioned above, such as the uncertain and irregular rainfall and the impoverished soils. Where there is population pressure on land or competition within groups, constraints may include the lack of cultivable land. Mandatory growing of cotton and groundnuts reduced the available land in colonial times. Insufficient labor is a constraint in some cases leading to behavior that maximizes return to effort

rather than return to land. Under a simple subsistence economy, this would be known as a "labor-consumer balance"--no unnecessary effort would be expended to produce things which were not needed. In the mixed subsistence-commercial economies of present day households, Mossi families may find themselves short of labor through competition with other forms of production or work. Each household will have its own particular constraints of land and labor.

A major observed constraint to many households is lack of cash to invest in improved land management technology, which perpetuates the use of low cost traditional technology and farming practices, such as fallowing, where feasible, and the burning of bush regrowth and crop residues, rather than the use of fertilizers or pesticides which would take up scarce cash supplies.¹³ With no sales profits to put back into farm management, cash can only come from other sources and may be insufficient

¹³A major study by Mesnil in 1970 offers evidence of the farmer's point of view of the economics of using pesticides and fertilizers in the central parts of the Mossi region.

Mesnil, J., 1970 Connaissance du milieu et vulgarisation agricole dans le cas de l'operation centre Mossi. 9 volumes. Paris: SATEC.

to cover other urgent requirements such as tax payments and supplementary food supplies.

Production for Sale

Within this field of decision making, the goals of production are different from those of production for use. The product is not defined by the needs of the household but either by the market or by the planners. The goal of commercial production is profit, to add to the scarce cash resources of Mossi households. By generating cash which can be used to buy food, it also provides a form of insurance against food crop failure. Commercial production may include livestock as well as crops, and the keeping of livestock by Mossi families under the care of Fulani herdsman is a strategy for holding a cash reserve and keeping a cash component to their incomes.

The main cash crops are cotton and groundnuts, but these are only significantly profitable in the southern parts of the Mossi areas of farming.¹⁴ Many family-households have only meager cash supplies from crop sales;

¹⁴The Bobo-Dioulasso and Dedougou regions produce nearly half of all cash crops (USAID, 1980). These regions are in the southwest of Upper Volta, outside the Mossi Plateau, and there has been some internal migration to those areas.

selling surpluses (in good years) of groundnuts, sorghum, millet, and the produce from small vegetable gardens and rice plots. Many get small amounts of cash from selling processed foods, spices, and beer made from red sorghum. Chickens, goats, or sheep may also be sold for cash when needed but not on a regular commercial basis.

While crop sales rather than livestock are the chief sources of income for most families, neither is a safe source of regular income except in favored regions. The goals of production for sale in most Mossi family-households are to supplement incomes not to provide the main support, but even these small amounts of cash are important since cash is needed by families for many things which cannot be supplied without it, and to meet obligations for taxes, etc.

Decisions and Economic Behavior

Because of the limited role that production for sale currently plays in Mossi family livelihoods, there is no striving for an increase in profits from these operations but a cautious approach to any attempt at improvement. The margin for risk-taking is narrow and most Mossi households are reluctant to rely on the market for food supplies and they are critically tied to a rigid agricultural timetable for growing food crops because of the short growing

season in the rainy summer months.

Households may show some desire to increase their cash incomes through participation in commercial crop or livestock improvement schemes, but many are unwilling to shoulder the debt burdens which are beyond comprehension in relation to the amounts of money available to the ordinary household. Where the average cash income per year is about \$159 (IBRD, 1979), debts can be frightening. Mesnil's study of the SATEC scheme (Societe d'Aide Technique et de Cooperation) for the modernization of agriculture involving Mossi farm households in the Ouagadougou region of Upper Volta in 1970 showed that the loans for equipment were too high for most families to manage. A loan of 13,000 CFA (\$52) was needed to purchase the equipment for animal traction and this was seen as a drain on limited cash incomes from which regular sums already had to be found for the tax and other necessary obligations. There was appreciation of the technical value of the proposed improvements but a fear of the financial burden, especially as no immediate return in extra income could be counted on and cotton prices were unstable. Two comments from Mossi farmers illustrate their attitudes. One says

J'ai vu Tibila travailler avec la houe... Tu peux faire en un jour avec l'ane, le travail de 3 ou 4 personnes en plusieurs.

"I have seen Tibila working with the donkey hoe...
You can do in one day with the donkey the work of
3 or 4 people at least."

Others say, however,

...pour avoir une houe il faut etre aise au
depart, autrement il faut compter sur Dieu...
Ce n'est pas la houe qui amene l'argent, c'est
l' argent qui permet de l'acquerir
(Mesnil, 1970. Titre 6: 59).

"...in order to have a hoe it is necessary to be
in comfortable circumstances to start with, other-
wise rely on God... It is not the hoe which brings
in the money, but money which allows the hoe to
be purchased."

Costs of transportation for crops also pose problems.
Donkey carts cost more than most families can afford. In
the Tenkodogo region in 1977, where the average annual
cash farm income was estimated at 30,000 CFA (\$120), the
price of a cart was 44,000 CFA (\$176) and did not include
the cost of the donkey (Delgado, 1979: 310). Donkeys
are the traditional beasts of burden among the Mossi but
they sell for about 3,500 CFA today (Mesnil, 1970).

Alternatively, participation may be undertaken for
non-material reasons such as compliance with government
directive, without a real appreciation of risks, and when
expectations are not met there is a feedback which leads
to resistance to further participation. The venture is
seen as unprofitable.

In the case of cotton growing, there is more

acceptance of new techniques, and Mesnil concludes that this is because the techniques themselves have been proven effective and because the cotton farmers have more flexibility, being in a less marginal position (Mesnil, 1970). An interesting factor also noted by Mesnil is that animal traction is more likely to be used by households which are not labor short, although this is a labor saving innovation, because these tend to be the households which can afford to experiment (Mesnil, 1970).

Constraints

In terms of production for sale, constraints become part of production costs or opportunity costs to the household. Production may be constrained by the costs of inputs to farming or the opportunity costs of land and labor. Delgado states the case for the farming households in the Tenkodogo region where attempts are being made to integrate cattle raising into small-holder farms in this southeastern region:

the high opportunity cost of November labor, which is made even higher by a desire for on-farm self-sufficiency in food grains, coupled with a high labor requirement for feeding and supervising animals at this time, offer an economic explanation of why peasants do not look after their own cattle, but instead prefer to entrust them to the Fulani (Delgado, 1979).

Where the opportunity to "hire" Fulani herdsmen is not available, the keeping of cattle is not a viable option for Mossi families.

As in the case of production for use, there are constraints which are internal to the decision makers and which concern their attitudes to commercial enterprises and their attitudes to cash earning work, and there are external constraints. To the risks which are associated with all agricultural production, such as climate and soil fertility, are added, in the case of production for sale, the risks associated with the market and the "institutional risks" which are outside the farmer's control. These include the collection of produce, other marketing procedures, and the making of payments and financing of debt.

Few Mossi households have any learned experience and behavior to cope with these new risks and constraints. Their experience has been generally limited to the kinds of knowledge needed to market small quantities of produce or of processed goods in local areas.

Work Outside the Household

Goals can be very complex, and they can involve clear distinctions between individual and group motivation. Work outside the household means for most Mossi families migration to the coastal regions or work in the urban areas,

since there are few opportunities for paid work in the rural areas of Upper Volta. Small services may be paid for among farm families but regular jobs are scarce. Those who do hold such employment in the rural areas are usually government officials posted from central establishments, with a mode of life which probably includes the employment of relatives in farming operations.

In terms of group motivation, work outside the household is part of a normal strategy to get a livelihood from different sources where the rewards from each are insufficient to support the group and to maintain the family-household. The strategy is an organized one with group decisions underlying it and initial departure financed from family funds. The individual is then expected to feel duty bound to return a regular and substantial part of his wages.¹⁵ The money is used to deal with essential expenses and to provide a better diet. It can be used for investment in education of siblings and children of the family,

¹⁵It is hard to get specific data on actual amounts of cash sent home but a study of a Mossi community in Zorgho found that one third of the average annual cash net income of 28,324 CFA came from relatives working away from the village (240 CFA = 1 US\$). The official figure for remittances to Upper Volta is 78 million US\$ in total, (USAID, 1980; Delgado, 1979).

or in the purchase of cattle. It may, in some cases, be used to pay for hired labor to make up for the absent workers. In most cases the migrant worker returns home for the cultivation season and returns to the coast after the food harvest.

For the individual the goals may vary. In some cases, escape from the confines of family authority and the desire to gain individual wealth may be the motivation. Although unemployment is high in urban areas, once a job is secured it may become a better option than farming, especially where land is scarce and the opportunities to get a cash income from it are precarious. If the individual's position in his home area is not very prestigious, this may also be a reason to try to win social advantages through the acquisition of wealth.

For the majority, however, it seems that migration generally plays a part in a life-time strategy which involves keeping in touch with the home region. A recent report on Mossi migration describes the typical migrant as "a young bachelor - 30 per cent of the migrants are under 25 years of age - seeking to earn enough money to return to his homeland to marry and settle down" (ORSTOM, 1975). A major goal seems to be to retain the ties to the family which are still the best security for the future.

These ties include the networks of people and the land resources controlled by them in which the individual wishes to keep a stake. The remittances made by the worker constitute a kind of investment in the family-household. An added incentive is the prestige accorded to returning migrants who clearly have a superior status even if their traditional status was not high (Skinner, 1965, 1974; Mabogunje, 1974; Gugler, 1969; Busia, 1950).

Decisions and Economic Behavior

For the group this strategy of having sons work outside the household is a risk-sharing and risk-spreading strategy, as well as a means of social mobility. As in the case of the individual, the display of wealth and the bringing of gifts by migrant workers can be a test of success for the family group also.

For the individual, however, the economic behavior might be said to be characterized by risk-taking, as opposed to the risk-sharing and risk-minimization behavior which characterizes the family-household strategy as a whole and the farming operations of the family group. The individual leaving for work in the coastal regions takes a big chance. Unemployment is high, the social situation of workers there is poor, and although there are often ethnic associations and even "expatriate Mossi chiefs" to watch over the

migrants, this is but a cushion to what can be a difficult time for a worker. But the stakes are also high, and the job seeker knows that there is a better chance of a regular cash income in the urban regions than at home, even though the risks of failure are known. Returning empty handed is failure too, so that migrants will stay away longer if they cannot achieve their targets.

Workers in local urban areas can move more easily between farming and work in paid employment so that the risks for them are not as high.

Constraints

The internal constraints on decision makers are similar in many ways to those which are operative for any kind of work beyond the immediate production of food crops, that is, the kinds of aspirations which they have and the type of knowledge of risks and opportunities available to them.

External constraints may be the family hold on the individual, labor shortages for farm work on family land, lack of land which pushes the individual to seek work, and also the way that expectations are channeled by the experience of those who have tried to seek a living in this way before them. Migration is long established as a way of getting a livelihood among the Mossi and the places to

go to, and the routes to follow are well mapped out. Government regulations may interfere with these patterns as in the case of the expulsion of workers from Ghana in 1969, but otherwise the migrants follow a well beaten path in efforts to seek work.

In the past, this option of seeking work was avoided in preference to any other way of obtaining cash, from the sale of animals or the sale of crops, in a desperate effort to avoid European employment, which was harsh and which contributed nothing to the family's security. Labor recruitment for the French ended only in 1947, but by this time a pattern of migration and cash earning had been established.

Purchase of Goods and Services

There are three major goals of consumption for purchased items among Mossi family-households. The very poor households may have to rely on the purchase of food where their farm resources are not sufficient to supply their needs, and many households have to buy supplementary food supplies during the "thin season" or "soudoure" before the annual harvest. Delgado confirms that 1977 was a year when most farm families either had to drastically reduce consumption or purchase grain from outside sources (Delgado, 1979).

A second goal in relation to purchase is the purchase of inputs to agriculture, but this is limited to the wealthier families and is for cash crops rather than the essential food crops. Household waste, and goat and sheep droppings, are the usual fertilizers used on the "manured plots" rather than purchased fertilizer. Where livestock are kept, they are fed on gathered grasses not on purchased feedstuffs, or else they are grazed on bush fields.

The third goal of consumption spending is the province of the family-households which have larger disposal "incomes" than the average. They purchase extra foodstuffs such as tinned milk, tea, coffee, sugar, and other additions to the basic diet. They also purchase other factory made goods such as bicycles, radios, and watches, and clothing. Skinner describes how most people now prefer to have European fabrics and clothes, although the older people are said to prefer the traditional Mossi cloth which used to be made by skilled weavers during the dry season when there was little agricultural work to be done. He describes how the effects of change brought about by the availability of cash and the new ideas associated with returning migrants have led to the purchase of zinc buckets to replace pottery jars, kerosene lamps to replace shea butter lamps, and the purchase of new consumer items such as curtains, chairs, and beds (Skinner, 1965).

Cement is now used in house building instead of the sundried bricks which were used traditionally, and this is not simply because of a desire for change but because the labor to make these bricks is no longer available since the young men are away for work (Skinner, 1965).

Decisions and Economic Behavior

Cash is a very limited commodity in most Mossi households. The estimated total income is only \$159 per capita for 1979, and the "disposable" income in some families has been estimated at \$6 which means little or nothing (Morris, 1977). This means that purchases of goods of any kind are made rarely and with caution, except among those families that have a regular cash income which covers more than their food needs. Economic behavior in respect of cash purchases, therefore, is characterized by important differences among family-households in respect of access to cash and general living standards.

The desire for purchased goods is not sufficient to induce an impoverished farm family to venture into commercial efforts to find money, or to risk the small amounts they may have in dubious attempts to try new methods of improving the soil. As Marchal puts it "...one must not lose sight of the fact that 200 kilos of surplus sorghum in the granary of a peasant haunted by famine, is worth more than the promise of an eventual sale of sesame

and cotton," and, he might have added, the ability to purchase goods (Marchal, 1977: 85).

Most cash expenditures in the poorer families are for food staples, and cash, in these cases, may be a kind of insurance to replace the traditional inter-household support which has broken down in many places.

Economic behavior in respect of cash purchases may be said to be either a conserving behavior among the poor or a demonstrative type of behavior among the rich to show off their status by the display of wealth.

Constraints

The most obvious constraint to the purchase of goods and services from outside the household is the lack of cash which makes this possible, but there are others. One is the uncertainty of supplies, especially of food grains, which makes Mossi family-households unwilling to have to rely on the market for their staples. Delgado mentions this specifically in relation to the farm families of the Tenkodogo region, who in fact are not isolated from urban centers but who are reluctant to rely on purchased food, for they have experience enough to know that this can be unsafe (Delgado, 1979).

High prices are also a constraint on the purchase of goods, and these prices are a result of the low level of

production within the country, the long distances to markets, and poor communications, all now aggravated by soaring costs of petroleum. Only professional urban family-households can meet these prices, or those who receive more than the average amounts of cash from their migrant members. It is, however, interesting to note that even in the poorer regions there is considerable purchase of small items, batteries for flashlights, new tires for bicycles and food items such as salt or meat. There is a very useful description by Lallemand of a Mossi family in Yatenga which includes an account of how one family member, Isaka, spent the 55,000 CFA which he brought back from the Ivory Coast:

...envers les gens de la concession...il leur remit, en objets ou en argent, 22,000 CFA-dont 10,000 CFA a Ali pour le commerce (infructueux) de ce dernier.

Il s'etait prealablement achete des habits, velo, et transistor. Quant au reste, il affirme etre incapable de dire a quoi il l'a employe; il pense que de frequents achats de sel, poissons, viandes au marche, pour les "meres" de son unite, des visites a des parents habitant a l'exterieur, auxquels il offrait des petites sommes (100,125 CFA) et surtout des prets a des amis de son age (8,000, 9,000 CFA), ont eu raison de ses gains d'emigrant. ...ils acheta une tete de betail, un veau a 2,500 CFA, avant l'epuisement complet de ses reserves.

En 1971, il a recupere 4,000 CFA sur les fonds empruntes par ses camarades. (Lallemand, 1977: 92)¹⁶

¹⁶"to the people in the compound he gave, in goods or cash, 22,000 CFA (\$88) -- of which 10,000 CFA was to Ali for a business venture (unsuccessful).

He bought first some clothing, a motorcycle, and a transistor radio. As for the rest, he agrees that it is

Consumer purchases would seem to be small but frequent among such families.

In relation to farm inputs, the high and continuing costs, relative to the low cash incomes, limits their purchase since there is little to be gained from sporadic expenditures on agricultural improvement. There are some discussions of this aspect of expenditures in both Delgado (1979) and the extensive study of the Mossi by Mesnil (1970).

Conclusion

The four sub-fields of decision making considered above--production for use, production for sale, work outside the household, and the purchase of goods and services--are basic to the model and represent a framework for thinking and for the analysis of family-household resource allocation. Trade-offs among them are the key to understanding decisions.

The discussions under each of these headings are, however, particular to the Mossi family-households in Upper Volta, and they represent only examples of the kinds

hard to say what it has been used for; he thinks that it went in frequent purchases of salt, fish, meat from the market, for the "mothers" of his compound, visits to his parents who live some way away and to whom he gave small sums of money (100,125 CFA) and above all in loans to friends of his own age (8,000, 9,000 CFA)...he bought a cow for 2,500 CFA before using up all his savings.

In 1971, he got back 4,000 CFA of the money borrowed by his friends."

of goals and values, types of decisions, economic behavior, and constraints, that apply in these cases.

The two sub-systems of the model, that which is related to people and that which is related to function, brought together, provide an interpretive key for the understanding of observed economic behavior in Mossi family-households, and in African family-households generally, now that these domestic units can no longer be primarily explained in terms of either ethnic affiliation or traditional cultures.

Multi-kin in composition, multi-functional in purpose and action, and using multiple resources to get a living, the family-household unit in Africa is best explained through a whole systems approach. The next chapter deals with this factor in terms of its relevance for development planning.

CHAPTER 6

MANAGING PLANNED CHANGE: THE APPLICATION OF THE RESEARCH MODEL TO DEVELOPMENT PLANNING

Ethnographic descriptions of single villages... reveal the possible units of production which may be selected for study: (1) the extended family compound (galle); (2) the unit within that compound that eats together (feu); (3) the unit within that compound that sleeps in the same set of rooms (menage).

The group which seems most adequately to represent the unit from which the work team is drawn is the household (menage): that is a man, his children, and his wives. This group regularly combines with other households to work on the collective lands of a galle. In the evenings or on other days of the week, the household team works on its own fields. It appears that on the consumption side as well, the basic unit--the unit that makes the decisions about who is going to work with whom, on which parcel of land, and for how long--is the menage--Societe Nationale des Etudes de Developpement (SONED) Study. World Bank Report, Senegal, 1978: 45.

Development planning is specifically defined here to mean any planned intervention, technological or organizational, into existing social or economic systems. In African countries today this kind of intervention occurs at many different levels as part of a general thrust by governments and international agencies to improve the well-being and the economic performance of the developing countries.

Despite a great deal of effort and interest, development strategies have mostly failed to bring substantial improvement to the majority of African people, whose living standards remain very low. The question of how to achieve improvements in economic and social development in African countries remains open. Transfusions of capital and skill have not been enough. Industrialization, except on a limited scale, has not been feasible. Importations of technology have often been inappropriate because technical knowledge is biased by its origin in high-income countries where social and economic circumstances are very different.

Where progress has been made the benefits have been unequal. Many would argue that the poor are often in a worse position as a result of current economic changes, and that far from being pulled up by the leverage of general economic development at the centers of power, they have been progressively disadvantaged. The poorer groups in African countries seem to get the worst of both worlds. Their indigenous systems of livelihood are disrupted while, at the same time, they are denied access to the evolving newer economic systems except on the most disadvantageous terms (O'Keefe and Wisner, 1977; Mbithi and Barnes, 1975; Rodney, 1972; Arrighi, 1970; Leys, 1975).

In response to this evidence of growing inequality, resulting from differentials in the distribution of the

costs and benefits of change, more attention is now being paid to the poorer people who live in the rural areas of the continent, many of whom have poverty living standards by any measure. Present development strategies are aimed at improving their living standards by trying to improve their productivity. Most of these people are farmers or herders, whether full-time or part-time, and consequently development planning at this level means intervention into the existing farming and herding systems. For this to be effective, research has to be directed towards improving knowledge of these systems. Part of the current trend in research has also been to get away from false distinctions between the urban and rural economic systems because the linkages between these are increasingly recognized as important (Taylor and Obudho, 1979).

For applied micro-level research, a practical problem becomes: what constitutes the relevant unit, the unit that makes decisions? These practical considerations have led to a focus on the family-household, even where larger kin or lineage groups continue to have inputs into decision making. Workers in the field increasingly report that it is the household that effectively makes the decisions (Delgado, 1979; Baker, 1977; Knight, 1974; Grayzel, 1976; SONED Study, World Bank Report, Senegal, 1978).

As a focus for research, the household has two other important attributes. First, it is a unit which can be communicated with on a day-to-day basis, which is an important consideration in fieldwork (Grayzel, 1976; Norman, 1976, 1980). Secondly, a focus on the household leads logically to a consideration of the significant flows of cash, goods, and people which take place between rural and urban places. It soon becomes evident in any research on the African family-household that these flows are critical for understanding spatial aspects of economic organization.

A defined field of study has arisen which concentrates on the farm-family-household as the appropriate unit for research and which is an attempt to base agricultural research work on sounder field experience. This field of study is known as "farming systems research," and it has been mainly the province of agricultural economists who, historically, have done much of the on-the-ground work in rural development in Africa. Geographers have tended to be more interested in the larger agricultural and ecological systems, though recently there has been some interest in land use studies, sample studies of farms, and village level studies of change (Rald, 1975; Gallais, 1967; Pellissier, 1966; Knight, 1974; Wisner, 1977; O'Keefe, 1977; Remy, 1974; Lahuec, 1970).

Among agricultural economists dealing with the technical aspects of crop and animal husbandry, the interest in farming systems research represents an increased recognition that farming is more than a biophysical process and that social factors are important in the organization of agricultural production systems. In the case of African farming systems this means a realization of the fact that the farm-as-a-firm and the farm-household are interdependent, and that this is basic to understanding how farmers and farm families make decisions. In Africa the development of this philosophy and approach owes much to the work of Norman in Nigeria and his concern with the constraints facing African farmers in their attempts to improve agricultural production (Norman, 1976, 1980).

Norman (1980: 2) defines a farming system as "the system which arises from the decisions taken by a small farmer or farming family" with respect to allocating resources to "crop, livestock, and off-farm enterprises in a manner which, given the knowledge the household possesses, will maximize the attainment of the family goal(s)." In theory the farming systems approach, therefore, is also valid for herders, but in practice the problems of cultivators have been of more interest to researchers until recently, and livestock have tended to be considered only so far as their management and herding systems impinge on

crop systems (Norman, 1980; Delgado, 1979).

Making the farm family's goals a subject for research and including the importance of off-farm income as a factor in the way farming households operate represents a significant change in thinking. In practice, however, it has been hard to follow through from the philosophy to a methodology. Most of the current models are derived from the parent discipline of economics and are linear programming models which investigate the production possibilities of specific crops, the introduction of new combinations of crops, or combinations of crop and livestock enterprises. Although the decision making of the farm family is said to be important and the farming system is defined as a goal oriented system, these models are usually based on the assumption that there is a single farm manager and a single goal of profit maximization. Social factors, including even the basic need to provide for the farm family's food supply, are then introduced as constraints in the model, similar to other exogenous constraints. This obviously violates the concept that the farm family's goals are important determinants of the system (Cleave, 1977).

The question of goals is critical to the whole purpose of farming systems research because where development

planning is designed for expanding production, especially of commercial crops, this may come into conflict with the farm family's priorities. In the end the fundamental purposes of the farmers are critical to their acceptance of innovations (Ruthenberg, 1976, : 12; Lewis, 1977; Wharton, 1971).

It is clear that new and different models are necessary if social factors and social processes are to be incorporated as integral parts of farming systems research. Implicit in the use of many conventional economic models is the feeling that the complex realities of African social systems are incompatible with a modernized agriculture and that African farms ought to operate like small commercial farms in the developed world. Since colonial times, most of the efforts in modernizing agriculture have gone into the production of commercial crops for export. The modernization of food crop production has until recently been left outside the scope of work in agricultural development and food crops have been consigned to the realm of "traditional" concerns. This has perpetuated the idea that there is a "subsistence sector" which is separate from the market system and which can be left to take care of itself, a view which was widely held by colonial administrations. The present food shortages in many African countries and the pessimistic forecasts for food crop

production point to the urgent need for a change in thinking. Part of this change in thinking must concern the real nature of the farm-family-household as an important production unit, not only for agricultural production in general but locally for the production of food supplies.

To advocate a focus on the decision making of farm family-households as a preliminary to development project design and as a basis for the collection of data on existing farming systems is one thing; to structure research questions effectively, or even to identify the relevant unit satisfactorily, is quite another. The fact that planners often fall back on conventional models of farms is partly because replacing these with more realistic micro models is difficult. Many appreciate the need while at the same time they suggest that trying to get the necessary information is both impractical and too expensive.

Detailed anthropological research takes many years and it is unsatisfactory to hire people to provide background information from written materials, unless they understand specifically what is required. Since much planning work is done without the benefit of this kind of research, or at best with information that was collected for some other purpose, what is needed is a research model which provides a key to structuring the critical questions.

This is the rationale for directing attention to the African family-household as a basic research model and for recognizing it as a system instead of a structure so that precepts can be formulated which provide rules for identifying it in the field. Decisions about household membership are sometimes difficult to make where economic ties are irregular or family members absent for long periods, while, in other cases, groups obviously bound by such economic ties may be scattered among a number of different locations. The systems approach provides a useful perspective for solving these problems in terms of identifying the important linkages and viewing the family-household as an interdependent economic organization, one in which shared social and economic interests plus the use of common resources makes for a coherence in the functioning of the economy. This concept of the household as an organization is in line with an expanding research frontier in economics which treats the household as a decision making unit.

That the problem of identification presents serious difficulties for surveyors accustomed to a "western" view of the household soon becomes apparent when an operational definition is needed for surveys and census purposes. The simple instruction to base the definition on shared use and shared dwelling is soon seen to be inadequate, and the complexities of the real situation present many problems.

"No other definition in the survey caused us as much difficulty as the definition of the household...new rules had to be invented to deal with each new specific case right until the end" wrote the authors of the Botswana Government's Rural Income Distribution Survey in 1974-75.

This study was designed to deal with these issues in a comprehensive way, examining the nature of African family-household composition and organization. It emphasizes the ways in which social factors associated with the older indigenous forms of household organization can still persist in the domestic economies of today, sometimes altered in substance and significance by the effects of economic changes, and what this means in terms of resource use and work organization as well as the distribution of rewards and benefits.

The African family-household is described and examined as a complex economic organizational system which has a dual nature both as a social and economic unit and as a semi-subsistence domestic economy. Historical evidence is presented to show how these ambiguities have come about and why it is that most African family-households find themselves in the situation of being what Kroeber (1948) calls "worker-peasants," mostly involved with farming or herding and yet almost always dependent on cash wages or other sources of cash income. Although this is related in many

cases to the fact that households are poor and must rely on both sources of livelihood, the fact is that rich households also can be described in this same way as semi-subsistence economies because they too use the resources of their farms and the rewards of their jobs or their businesses in a combined domestic economy. Some rich businessmen in Nairobi, for instance, have farms from which they get both substantial basic food supplies for their households as well as substantial profits from the production of export crops. Dependent kin are frequently brought to work on these farms, often for low wages (if any) although they will be recompensed in kind. It is clear that an understanding of this situation is very important for planners. It is important to know that the farming unit they are dealing with is not a single entity but forms part of a larger economic unit. It is also important to know that the nature of management and the nature of the farm labor force is different from what it would be if the farming unit were under the control of a full-time farm family. These matters are obviously critical for the planning of innovations in farming.

The implications of the dual nature of the African

family-household as a semi-subsistence economy and the important consequences that follow from this fact form the basis for structuring research questions effectively. When the household is acknowledged as an important existing production system with these significant and critical characteristics, and not as a relict traditional structure that is likely to wither away before the advancing forces of modernization in the near future, then a more positive approach can be taken towards understanding its economy (Wallerstein, 1979). This is important in a continent where it will take a long time to establish fully commercial production and distribution systems, especially of the all-important food staples, and where, therefore, the family-household must be recognized as one of the most effective units of production.

What then are the important questions which planners need to ask? What is it that they need to know? In relation to the fact that the family-household is a social unit as well as an economic unit, they need to be aware of how social factors affect the way that the system is organized, how decision making in African households reflects the fact that kinship roles have an economic content and can be the key to understanding resource distribution as well as work organization (Rigby, 1969; Delgado, 1979). In the African family-households of West Africa, for instance,

Ancey (1975) found no less than nine levels of decision making. Planners cannot, therefore, relate to one single manager. The fact that kinship roles are in effect economic roles is built into the research model because the functional system of the household cannot be understood without reference to this factor, though it is explained that kinship relationships do not necessarily operate strictly in a customary way.

Some of the more important implications of this fact are as follows:

- (1) because there is more than one manager, responsibilities are divided and conflict can exist as well as cooperation;
- (2) the organization of work may be based on certain established sexual or generational divisions of labor which constitute rigidities in the system that planners would need to understand if they aim to alter production patterns and methods;
- (3) because of the customary organization of work, the labor force will often include children who must be accounted as active workers even as young as seven or eight years, and as full adult workers at the age of twelve years (a fact that may be overlooked by surveyors accustomed to count only those over fifteen years

- old in the labor force);
- (4) land organization will also reflect social relations and, consequently, different plots will have different owners within the same household group;
 - (5) land ownership or rights of use often result from inheritance, not from purchase, and there can be social restrictions on its use;
 - (6) the goals of production will reflect social needs, and maintenance of the land unit, insurance of the family food supply, and the retention of certain techniques or crop mixtures may take precedence over productivity gains measured by external objectives.

The fact that the family-household in Africa is a semi-subsistence domestic economy has other important implications. It is critical for research workers and planners to realize that this is a totally interdependent system and does not consist of two separate spheres of activity. Joy was able to show how Barth's description of the Fur economy in the Sudan Republic, as consisting of two separate spheres, was false when he produced a matrix formulation of Barth's flow diagram (Barth, 1970; Joy, 1970). The use of the same labor force in both spheres, for instance, and the fact that the same crops could be

used either for subsistence or for sale, or the fact that livestock might also have dual functions in the household economy, all point to the potential for trade-offs in decision making and transfers of value which destroy the idea that the two parts of the household can be kept separate once market forces begin to affect it.

As an interdependent system it becomes obvious that any change in one of the elements can produce alteration in the whole system, and that the effects of change can thus be traced through the system, a factor which is clearly important to understand in terms of innovations in farming methods. Where data exists these changes can be measured. As things stand at present, planners are often looking at only part of the total system, the economics of the farming unit without the economics of the household (Cleave, 1977). It is the systems approach which provides a methodology for the researcher to examine the external flows between the household and the larger economy. In explaining the household economy, the inputs and outputs of cash and labor can be understood in much the same way that the inputs and outputs of a firm can be understood. From the planners point of view in respect of farming it means that the implications of the interdependence of the farm-as-a-firm and the farm-as-a-household have to be met. Some of the implications of this factor are set out below:

- (1) existing production patterns may reflect the availability of cash inputs to purchase new seeds, fertilizers, or other inputs such as pesticides;
- (2) labor availability may be related to job opportunities and farming units may be depleted of labor where these are good, or depleted where farming opportunities are poor and the younger members seek better livelihoods elsewhere;
- (3) planned improvements cannot be taken up by families who cannot supply the stipulated number of active workers to work the required land acreage, as for example in Machakos in Kenya where a three-acre "package" of improvements was designed but was impractical for poor families (Hunt, 1978);
- (4) labor may be hired where cash is available to extend both the farming area, where land is available, or the amount and type of production;
- (5) farmers may be part-time, which affects their attitude to farming and what they produce on the farms as well as the inputs they make into farming from their other activities;
- (6) any observable farming unit may not constitute an economic farming entity but may be part of a

larger family-household economic system, owned perhaps by a store-keeper or businessman.

Again, as in the case of the implications of the interplay between the social and economic factors in the household, the list of implications relating to the duality of the semi-subsistence economy is not complete or comprehensive but represents a sample of the type of considerations that development planners need to take into account if their interventions are to have any hope of being effective.

Planners often speak and write of the need to understand the existing systems and many project reports and documents start with the thought that to be effective, planned change must proceed from a knowledge of these existing systems. While existing systems can be defined to mean different things to different people, there is now a consensus that in Africa it is the individual production systems of the farming and herding family-households that constitute the relevant units for research.

The purpose of this study has been to make a contribution to the thinking about appropriate methodologies for understanding these systems. The research model is an inductive model of the African family-household. It depicts the household as an economic organizational system, one which is no longer only a component part of a cultural group

but which spans a much larger functional economic space through its commercial sales and outside work activities.

The Mossi family-households of Upper Volta were particularly chosen to illustrate this factor because their economic ties to an external economy are obvious and the subject of intensive studies, but the first example, that of Samuel and his wife in the African city, is also intended to demonstrate the complexity of the economic arrangements that tie the production and consumption activities of the African family-household into those of the external economy, often linking urban and rural members of the family in a web of economic organization.

The household has a very important role in African countries as the main producer of agricultural produce and the chief source of employment for African people. The situation in the United States where some 3 percent of the workforce produces enough foodstuffs to feed not only the whole population but to contribute to world food supplies as well, is not likely to be achieved in the African continent for many decades even if it should be decided that this is a worthy goal of development. In the meantime, the inefficiency of the present system is cause for grave concern as many people are undernourished and short of food. How to make effective changes in the productivity of the

existing systems is, therefore, a crucial matter for those engaged in development planning in African countries. At the center of this issue is the need to understand how the household production unit presently functions.

APPENDIX 1

NOTE ON THE PREPARATION OF TABLES OF FAMILY-HOUSEHOLD DATA FOR AFRICA

The problem of finding data which is comparative for African countries results from both inadequate coverage for most of these countries, plus the differences in the definition of categories and some problems associated with different interpretations of the relevant phenomena. Terms such as "household," "family," "marriage," "mother," "brother," and others do not have consistent meanings from one place and people to another. Marriages are not always recorded, and women often have serious objections to disclosing the number of children born to them and in particular to any discussion of child mortality. These points have to be kept in mind when using this data.

Likewise people have the same reluctance to disclosing their income and cattle wealth or cash receipts from crop sales, that people do everywhere to such disclosures. For this reason many surveys deduce this type of information from expenditure data rather than income data.

The difficulties that result from the use of western concepts and definitions in regard to economic terms such as "income," "labor force," and "unemployment" have been dealt with in Chapter 1 in the broader context of a discussion on livelihood.

Data on population characteristics in general come from three sources: censuses, vital registration (births, marriages, and deaths), sample surveys. Of these vital registration is the most inadequate for African countries. Census and survey information is very variable. On household composition the factor of polygamy poses some difficulties because most census counts do not include questions on polygamy.

Official policy is often to disapprove of polygamy and to discount its significance but it remains of continuing importance in many countries. In Nigeria it was stated that de facto polygamy is still widespread though these unions are not registered (United Nations Economic Commission for Africa, 1963). In Upper Volta the President of the Republic had to concede in 1964 that he could not get agreement for his plan to abolish the institution of polygamy. Such measures are often seen as western inspired attempts to enforce change upon Africans. Polygamous unions as a percentage of all unions appears to range from

20 per cent in most African countries to as high as 63 per cent in Nigeria (Boserup, 1970). The consequence of this factor in relation to household composition and domestic economic data is obviously important. The situation is more often better understood from survey data.

In order to arrive at some indication of the order of phenomena described, therefore, it is often necessary to make calculations based on available contextual information, and where this has been done in the tables presented here, appropriate references and the methods of calculation have been appended.

APPENDIX 2

SOURCES OF INFORMATION ON MOSSI FAMILY-HOUSEHOLDS IN UPPER VOLTA, CHAPTER 5, AND ON THE EFFECTS OF COLONIAL POLICIES ON FAMILY-HOUSEHOLDS IN KENYA, CHAPTER 2

Mossi Family-households

Most of the information relating to the present situation of Mossi family-households comes from localized studies based on fieldwork but carried out for a variety of different purposes and written within the context of different disciplines. They all contain useful empirical data and are concerned with the dynamics of change.

For the area of the west Mossi, the most important studies used were those of Kohler, (Les Migrations des Mossi de l'Ouest, 1972, and Activities Agricoles et Transformation Socio-economique de l'Ouest du Mossi, 1968).

The first of these two monographs was based on field research done between 1965 and 1969 and was an attempt to evaluate the nature and significance of Mossi migration, particularly to the Ivory Coast. Much information on household organization, household budgets, conflict and cooperation within families, and data on migrants earnings and remittances was obtained from this study. Also the

effects of migrants earnings on family-household budgets, and the effects on the labor organization of the absence of young men, dealt with in this study, provided more detailed data.

The second monograph is focused on a small region named Dakola in the west Mossi region where increases in cash cropping have led both to changes in the agricultural system and changes in the distribution of wealth, with increased inequalities resulting. Useful data on the traditional organization of agriculture and on the effects of change come from this study, despite its limited scope. Msr. Kohler is a sociologist working with O.R.S.T.O.M. (Office de la Recherche Scientifique et Technique Outre-Mer). Both of these monographs are written in French.

For information on Mossi family-households in the northern part of Upper Volta a paper by Marchal (The Evolution of Agrarian Systems in Yatenga, 1977) proved extremely useful. The emphasis of this study, also based on extensive fieldwork in the early seventies, is on land shortages, inter-generational conflict over land, and the out-migration of many families to other parts of Upper Volta, as well as the migration of young men to the Ivory Coast for paid work as a regular and integral part of the domestic economies of this region. Quantative data is given on

population movements, crop production, livestock sales as a source of income, landholdings, and changes in the agrarian systems. Msr. Marchal is a geographer working at the O.R.S.T.O.M. Center in Ouagadougou, Upper Volta. The text is a translation from the French.

More information for this region was also obtained from a very detailed study of one extended family group in Bamtenga by Lallemand, (Une Famille Mossi, 1977). The study is mainly sociological, dealing with the personal relationships within the group. It was helpful largely in understanding the complex interaction of social and economic factors in these relationships among wives, children, and siblings in polygamous marriages. Although very specific, it sheds light on many of the effects of change brought about by migration on the nature of the family-household work force and the results of the increased availability of cash to the group. Much useful empirical data is given. Most of the fieldwork was done in 1971. The monograph is written in French (Recherches Voltaïques 17).

For information on Mossi family-households in the southeastern part of Upper Volta, a monograph by Delgado, Livestock Versus Foodgrain Production in Southeast Upper Volta: A Resource Allocation Analysis proved very useful.

The author is an agricultural economist and his research methods are consequently different from those in the sources mentioned above but he presents a lot of quantitative and empirical data on the size of family work units, the sexual division of labor, the use of hired labor, the availability of cash for investment, the amounts of cash used in food purchases, and the use of migrants earnings. Land use and the problems of competing uses for land and labor between crop and livestock production are dealt with, giving more empirical information on these matters. Of special interest is the detailed information on the changing economic relations between Mossi and Fulani families in the research area of Tenkodogo. The field study was done over thirteen months including the 1976-1977 agricultural year. It covered forty-one Mossi and Bisa households in two villages, and a concomitant study of twenty Fulani families. This monograph is written in English. It contains a useful bibliography in both English and French, among which are references to other useful village level studies. Also noteworthy are some useful data from the O.R.S.T.O.M. 1975 study on Mossi migration--Enquete sur les mouvements de population a partir du pays Mossi (Haute-Volta), Ouagadougou. This study in six volumes is only available for consultation in Ouagadougou.

For Mossi family-households in the central region of Upper Volta, an important work by Mesnil, Connaissance du milieu et vulgarization agricole dans le cas de l'operation Centre Mossi, 9 vols., proved to be a useful data source. This work is an evaluation of the reasons for the failure of the S.A.T.E.C. scheme (Societe d'aide technique et de cooperation) for the introduction of animal traction (donkey drawn hoes) in the Ouagadougou region and the Koudougou region of Upper Volta in the 1960's. It provides data on the economics of Mossi farm family-households in those regions. It is a nine volume work, written in French, which analyses the experimental innovation in terms of the utility of animal traction for cash cropping and in terms of the inadquacies associated with the manner of its introduction. His conclusion that failure was related to the fact that animal traction, as financed under the scheme, was uneconomic in terms of local production conditions is accompanied by much empirical data at village level to support this conclusion. The Mesnil work is reviewed in an article by Remy, G. 1972 which gives further insights on local farming conditions. This paper Les lecons d'un echec: la culture attellee en pays Mossi (Haute-Volta) is in Cahiers d'Etudes Africaines, 12. There is no translation.

The same area and the same scheme were described in

de Wilde, et al., Agricultural Development in Tropical Africa, Volume 11 The Case Studies, 1967. The information on farm family-households, farm sizes and the nature of the farming systems is all of a general rather than a precise nature. The S.A.T.E.C. programme and the limited progress of the scheme at the time of the inquiry is described but in a much more general and less detailed way than the Mesnil study.

A small sample study of eight family-households in the village of Zaongho by Lahuec, J.P. 1970 Une Communaute Evolutive Mossi Zaongho (Haute-Volta) based on a year long field study over the period of the 1968 growing season, contributes limited but useful information on resource use in the central eastern region of Upper Volta. Data on land use, labor use, and household budgets was obtained from this study.

An interesting book by Skinner, E.P., 1974 African Urban Life, The Transformation of Ouagadougou provided many examples of the effects of change on Mossi family-households. In dealing with the rural-urban linkages it goes beyond a study of only urban households to examine how families have used the resources of both the city and the rural areas to get a living. It provides many insights into the changes in kinship relations that have come about through economic changes in the bases of

family-household livelihoods. Links between the peri-urban and urban areas are also included. Though concentrating on change, information is also given about the persistence of many indigenous forms of social organization. How these "traditional" forms become incorporated into new organizational forms is examined, as people learn to use both old and new institutions to their advantage. The effects of town life on such institutions as polygamy are thus considered. The data was gathered during 1964-1965 and was augmented during the period 1966-1969 when the author was United States Ambassador to the Republic of Upper Volta. During this time the author collected information from newspapers, from court proceedings, and from general observations made while living in the city. He also drew upon his own previous work on the traditional society of the Mossi, who account for the great majority of the inhabitants of Ouagadougou. The results of this work had been previously published as The Mossi of Upper Volta, 1964. The book gives a detailed historical account, presenting change as a series of successive periods from the mythical origins of Mossi society and the medieval kingdoms to French colonization and ultimate independence in 1960. Unlike the later book, the local dynamics of change are not treated here but the work is important for background

information on the hierarchical indigenous socio-economic system and the general directions of change, particularly the waning of the indigenous political system of the Mossi.

Other background information on the Mossi was obtained from another paper by the same author Skinner, E.P., 1965 Labor Migration Among the Mossi of the Upper Volta in a volume of essays edited by Kuper, H., 1965 Urbanization and Migration in West Africa. This work was based on fieldwork done in 1955-1957 and in 1960 and 1962. It traces the changes from the forced migration of Mossi workers by the French authorities to the voluntary migration which continued after this had ceased and which became a necessity for the support of Mossi families, partly as a result of the creation of new wants through migration, partly because of the disruptive changes that had taken place in the agricultural systems as a result of the loss of workers, and partly because of the increases in population and land shortages in home regions. The effects of change on Mossi society are well documented with examples.

Lastly, some detailed descriptions of the indigenous socio-economic systems of the Yatenga Mossi were obtained from a book by Hammond, P., 1966 Yatenga: Technology in the Culture of a West African Kingdom. This is written in the mode of an "ethnographic present" and is very little concerned with change.

Some information on current changes in the situation of Mossi family-households is coming from the reports of USAID funded projects in Upper Volta in the resettlement areas of the southwest which are part of the development program for areas cleared of the vector for onchocerciasis (river-blindness). These areas are in the Red and White Volta valleys and most of the in-migration is from the Mossi plateau. Reports from other AID agencies also contain some up-to-date data. These include FAO, UNDP, WHO, and IBRD (Food and Agriculture Organization, United Nations Development Project, World Health Organization, and the International Bank for Reconstruction and Development, respectively).

Colonial Policies, Effects on
Family-households in Kenya

Kenya was chosen as an example of a territory where the existence of a settler group led to a form of economic development which made a direct and adverse effect upon the indigenous Africans through the alienation of land, the deliberate recruitment of labor for settlers, and restrictions upon Africans deliberately designed to promote the European economy at the expense of the Africans' own economies. This was a situation which existed in North, South, Central, and East Africa. The availability of detailed

records, both official and unofficial, and the fact that a number of useful texts have been written, drawing upon these sources, makes Kenya a useful example for the discussion of the effects of colonial policies at local levels. Four major texts proved especially useful. These were: Van Zwanenberg, RMA, 1975 Colonial Capitalism and Labor in Kenya 1919-1939, which gives detailed background material on the mechanics of labor recruitment for the settlers, including the forced recruitment methods that were used between 1919 and 1939. Detailed references are given to public records and to correspondence between administrators and government officials in Kenya and in London. Further information of a detailed nature is also given on the indirect methods used to bring men out of their indigenous home areas and into European wage employment. These were tax burdens which had to be paid in cash, restrictions on the sales of cattle and crops, the encouragement of consumption which could only be met by cash, and the reduction of land for subsistence. Extracts from government circulars from the archives in Nairobi affirm that all these measures had the deliberate aim of maintaining the "flow of labor." The book is rich in references and documentation.

Another important text is Van Zwanenberg, RMA and King, A. 1975, An Economic History of Kenya and Uganda,

1800-1970. This gives a good general description of the impacts of colonialism on Africans, dealing with land alienation as well as with the colonial labor policies. It also deals with the pastoral regions in the northern areas, sometimes forgotten in the discussion of colonial impacts which often focus on the taking over of the White Highlands as the most important economic factor. While the sequestration of the White Highlands for European settlement did mean the alienation of 18 per cent of the best lands, these authors also remind us that in fact 75 per cent of the land area of Kenya is suited more to pastoralism or stock raising, and that it was in these regions also that the creation of Reserves led to confiscation of African land, while the fixing of boundaries disrupted grazing systems and the sales of animals among different indigenous groups. European prejudice against pastoral peoples at the time is well documented and the generally negative attitudes to all Africans described as "lazy" and "primitive" is explained with detailed references. This book also is an extremely useful source of references.

A useful book by Sorrenson, M.P.K. 1968, The Origins of European Settlement in Kenya gives a detailed factual description of the northward movement of the settler frontier from South Africa to Kenya and the first Boer settlements there. The settler philosophy of the "white

mans' country" is examined and the conflicts between the settler and the Foreign Office and the Colonial Office in London are explained in relation to land settlement policies as further settlement took place from Europe. The history of white settlement is discussed in detail with reference to documents from administrative and government sources in Kenya and in London. In particular the erroneous ideas concerning African land tenure held by Europeans and the didactic pronouncements about communal tribal ownership in relation to the question of rights to land and title to land, are described as they were recorded at the time. The creation of African Reserves in 1926 and the Order in Council which created the White Highlands in 1938, which were the ultimate resolution of these matters are examined in detail. The main cases of land alienation affecting the Massai and the Kikuyu are given in very detailed terms of local conditions, and both the settler sentiments and attitudes, and the African responses and complaints are well documented. Some of the documents are reproduced in the text, including letters and labor contracts. There are many excerpts from the official historical records. The book is very well referenced and an important source of information on all aspects of colonial policies.

A book which is more limited in its scope but which also contains useful documentation is Forrester, M.W., 1962 Kenya Today. In contrast to the other three texts, written by economic historians, this is the work of an economist. The purpose of the study which was done in 1958, a few years before Independence (1963), was to examine household income and expenditure for Africans to try to understand capital formation. The "native wage earner" in Nairobi was the focus of the inquiry and this led the author to study the linkages between the urban and rural areas, which remained close because of economic necessity. Interviews took place with the African wage earners in the city and their extended families in the rural areas. The author shows the nature of these linkages and then looks back at the historical record to examine the background for her findings. A section on colonial labor policies reviews some useful material and also gives excerpts from relevant documents.

In addition to the four texts reviewed above, a xerox of part of the Report of the Land Commission of Kenya (Evidence and Memoranda, Cmd. 4556, HMSO, 1934), which investigated tribal land tenure and land needs as estimated at the time and considered future needs, was used for information on African families during the colonial period.

APPENDIX 3

CENSUS GUIDELINES AND INSTRUCTIONS FOR ENUMERATORS EXAMPLES FROM SUDAN, TANZANIA AND BOTSWANA

(a) TANZANIA: Household Survey 1968

The universe for this survey consists of all private households in Tanzania mainland which meet the following definitions:

1. A one-person household is a person who lives alone in the whole or part of a separate housing unit and has independent consumption.
2. A multi-person household is a group of two or more persons who occupy the whole or part of a housing unit and share their consumption. Usually this will be the husband, wife and children. Other relatives, boarders, visitors, and other persons are included as members of household if they pool their resources together.
3. The husband and wife/wives may have separate houses and also have their meals separately. In such cases the husband/wife/wives and children are also counted as one household provided they live in the same enumeration area. A wife living in another enumeration area is counted as a separate household together with her children.

4. Cooks and other servants are included as household members only if they have their food with the household.
5. A boarder, a person sharing the housing unit and meals against payment, is included as a household member. A lodger who does not share meals with the host household is treated as a separate household. Households with more than five lodgers or boarders are considered institutional households and are thus outside the scope of the survey.

(b) SUDAN: Definition of Household ILO Urban Survey 1976

A private household was defined as a person living in his own dwelling, or a group of persons, irrespective of whether related or not, sharing the same dwelling and having common arrangements, in the sense of partly or wholly sharing meals and other household expenses. Resident domestic servants, employees and other persons living together and sharing meals were considered to be members of the household. A lodger--a person who occupied a separate room in the dwelling but who catered for himself--was considered a separate household, as distinct from a boarder who took at least one

principal meal a day with the household and was considered a member of the household.

(c) BOTSWANA: The Detailed Definition of a "Household"
Rural Income Survey 1974/75

An incomplete definition

No other definition in the survey caused us as much difficulty as the definition of a household. Even during the post-enumeration survey, we were still finding examples which the previously accumulated set of rules did not cover, and new rules had to be invented to deal with each new specific case right until the end.

A small selection of such problems is given below.

The boyfriend problem

It frequently happened that an unmarried man who was the father of children in the household and who had a steady job spent so much time with the mother and children, and spent so much money on them, that we had no difficulty in classifying the father as a member of the household. The father's entire wages were then credited to the household as income from employment.

At the other extreme, a woman who clearly lived beyond her own means and claimed to have a steady boyfriend, in fact had several different boyfriends who visited her at

different intervals, but she was very reluctant to admit this. In that case, only the presents she received were credited to her name; they were generally treated as transfer income.

In between these two extremes there were many ambiguous cases where it was hard to tell whether the boyfriend was a member of the household or not. In one such case, the man and woman didn't even agree as to whether or not they were married to each other.

The basic rule we applied was that the man, whether or not married to the mother of his children, should visit his family at least once every month and spend a very substantial portion of his wages on them, before we would list him as a household member and credit the household's income with his entire wages.

The integrated cattle herder

One elderly cattle owner appeared to have an exceptionally large number of grown up children at her cattle post. Eventually we discovered that these were cattle herders she employed, but she still called them her "children." The herders' names were then struck off the household listing and their wages were entered into the questionnaires as livestock husbandry expenses of the cattle owner.

SOURCES: Government of Tanzania 1968; ILO Sudan 1976;
Government of Botswana 1976

APPENDIX 4

HOUSEHOLD BUDGET STUDIES AND SURVEYS IN FOUR SELECTED AFRICAN COUNTRIES: BOTSWANA, KENYA, SUDAN AND UPPER VOLTA

These four examples are taken to illustrate the range and type of data available to research workers interested in studies at the household level in Africa. Regular basic statistical surveys of socio-economic data, of the type carried out in advanced industrial countries, are not made in most African countries. The non-integrated nature of the national economies, the variation in types of income, which includes a large proportion of income in kind and subsistence income, and the variety of patterns of consumption and expenditure, make comparative assessment difficult and expensive.

The material available is of two kinds: the large scale government comprehensive survey such as The Rural Income Distribution Survey in Botswana, the Integrated Rural Survey 1974/75 in Kenya, the Household Budget Survey for the Sudan, 1967/68, and the Inquiry on Mossi Migration, ORSTOM, 1975, for Upper Volta; and an assortment of small scale surveys carried out by a variety of organizations and research workers for limited purposes. Comparisons are often invalid because of the individual design of the

surveys, the different definitions of sample units such as the household, and the different definitions of items to be measured. To quote the authors of the Botswana survey "There have been almost as many definitions of household income as there have been household income surveys."

Recently there has been an attempt at standardization by the United Nations Statistical Office. See Statistics of the distribution of income, consumption and accumulation: draft guidelines for the developing countries. UN- E/CN 3/ 462, New York, 1974.

APPENDIX 4-Continued

COUNTRY	COVERAGE	SOURCE	TITLE AND COMMENTS
BOTSWANA	RURAL AREAS	BOTSWANA CENTRAL STATISTICS OFFICE	THE RURAL INCOME DISTRIBUTION SURVEY, 1974/75 SAMPLE OF 1800 HOUSEHOLDS (TOTAL POP. OF 93,000 HOUSEHOLDS) DATA: INCOME, SOURCES OF INCOME INCLUDING SUBSISTENCE INCOME EXPENDITURE, POVERTY AND POVERTY LEVELS, PLUS SMALL SURVEYS OF SOCIAL AND DEMOGRAPHIC DATA.
	GENERAL	CENTRAL STATISTICS OFFICE	AGRICULTURAL SURVEY 1972/73 1971/72
	RURAL AREAS	"	FREEHOLD FARM SURVEY 1970/1971
	RURAL AREAS	"	GUIDE TO THE VILLAGES OF BOTSWANA, 1973
	GENERAL	"	HOUSEHOLD EXPENDITURE SURVEY, 1968-1970
	RURAL AREAS	"	SURVEY OF RURAL INCOMES RESULTS OF THE PILOT SURVEY 1974
	GENERAL	"	EMPLOYMENT SURVEY, 1974
	PERI-URBAN AREAS	"	A SOCIAL AND ECONOMIC SURVEY OF THREE PERI-URBAN AREAS IN BOTSWANA, 1974
	THREE VILLAGES	MINISTRY OF AGRICULTURE	REPORT ON VILLAGE STUDIES MOSHUPA, MOLEPOLOLE, MANYANA 1972
	SHOSHONG AREA	UNDP/FAO PROJECT	INCOME, EXPENDITURE AND WEALTH IN THE SHOSHONG AREA TECHNICAL NOTE No. 31, 1972

APPENDIX 4-Continued

COUNTRY	COVERAGE	SOURCE	TITLE AND COMMENTS
BOTSWANA (cont.)	GENERAL	UNDP/FAO PROJECT	ABSENTEES REMITTANCES AS AN ITEM OF HOUSEHOLD INCOME TECHNICAL NOTE No. 2, 1972

APPENDIX 4-Continued

COUNTRY	COVERAGE	SOURCE	TITLE AND COMMENTS
KENYA	NATIONAL	CENTRAL BUREAU OF STATISTICS NAIROBI	INTEGRATED RURAL SURVEY 1974-75 AND SEQ. SOCIO-ECONOMIC TRENDS IN 23 DISTRICTS
	KIAMBU	CAHIERS D'ETUDES AFRICAN 56	SUBSISTENCE TO CASH: ECONOMIC CHANGE IN RURAL KIAMBU, 1974, BULLOCK, R.A. INCREASED IMPORTANCE OF CASH INCOMES ESPECIALLY FROM HORTICULTURE
	NAIROBI	UNIVERSITY OF NAIROBI I.D.S. PAPER 2	HOUSEHOLD EXPENDITURES IN NAIROBI, 1967, MASSILL B. AND HEYER, J.
	LUO AREAS	UNIVERSITY OF NAIROBI I.D.S. PAPER 10	WOMEN IN THE HOUSEHOLD ECONOMY: STUDIES IN FAMILY PLANNING, 1979, OKEYO, A.P. SPECIFIC DATA ON THE MANAGEMENT BY WOMEN OF MULTIPLE ECONOMIC ROLES
	NAIROBI MOMBASA KISUMU	MINISTRY OF FINANCE AND PLANNING, STATISTICS DIVISION (UN - PUBLISHED)	URBAN HOUSEHOLD BUDGET SURVEY, 1968-69 COMPOSITION OF HOUSEHOLD INCOMES, HOUSEHOLD SIZE AND DISTRIBUTION OF INCOME
	KAKAMEGA WESTERN KENYA	CORNELL UNIVERSITY PHD.	RESOURCE AVAILABILITY UTILIZATION AND PRODUCTION ON SMALL SCALE FARMS IN KAKAMEGA DISTRICT, WESTERN KENYA, 1977, RUKANDEMA, M. IMPACT OF POPULATION GROWTH ON LABOR PRODUCTIVITY AND INCOMES

APPENDIX 4-Continued

COUNTRY	COVERAGE	SOURCE	TITLE AND COMMENTS
KENYA	FORMER WHITE HIGHLANDS	I.F.O. AFRIKA STUDIEN MUNICH No. 72	SOME EXPERIENCES WITH SMALLHOLDER SETTLEMENT IN KENYA, 1972, VON- HAUGWITZ, H. ECONOMIC AND SOCIAL DATA ON FARM HOUSEHOLDS IN RELATION TO POOR PLANNING OF SCHEMES FOR RESETTLE- MENT
	EASTERN KENYA	CLARK UNIVER- SITY PHD.	THE HUMAN ECOLOGY OF DROUGHT IN EASTERN KENYA, 1978, WISNER, B. DETAILED DATA ON THE VULNERABILITY TO DROUGHT OF FAMILY-HOUSEHOLDS OF POORER FARMERS
	BARINGO- KERIO, ALSO MACHAKOS, KITUI, EMBU	KENYA MARGINAL SEMI-ARID LANDS PRE- INVESTMENT STUDY US AID REPORT No. 6 1978	HUMAN RESOURCES AND SO- CIAL CHARACTERISTICS, 1978, THOM, D.J. DATA ON HOUSEHOLD SIZE, COM- POSITION, SOCIAL AND ECONOMIC DATA SURVEYS OF 2,332 HOUSEHOLDS IN MACHAKOS/KITUI, AND 776 IN BARINGO
	BARINGO- KERIO	AFRICAN STUDIES ASSOCIA- TION, 1980	ECOLOGY AND PRODUCTION IN THE BARINGO-KERIO VALLEY, 1980, THOM, D. INTERVIEWS WITH 776 FARMERS, ANALYSIS OF ECONOMICS OF CURRENT FARMING SYSTEMS
	MACHAKOS	MINISTRY OF AGRI- CULTURE PLANNING DIVISION KENYA GOVERNMENT	CONSTRAINTS TO EXPANDED PRODUCTION AND TO MEETING BASIC NEEDS IN SEMI-ARID AREAS, 1978, HUNT, D. INTERVIEWS OVER 12 MONTH PERIOD WITH POOR HOUSEHOLDS

APPENDIX 4-Continued

COUNTRY	COVERAGE	SOURCE	TITLE AND COMMENTS
KENYA	WESTERN KENYA	SCANDINAVIAN INSTITUTE OF AFRICAN STUDIES UPPSALA	FAMILY, LABOR AND TRADE IN WESTERN KENYA, 1980, KONGSTAD, P. AND MONSTED M. ANALYSIS OF FAMILY LABOR RELATIONS AND CHANGING WORK PATTERNS. INTERVIEWS WITH 700 FAMILY-HOUSEHOLDS (CASE STUDIES)
	MWEA UPPER TANA RIVER	I.F.O. AFRIKA STUDIEN MUNICH No. 75	MWEA: AN IRRIGATED RICE SETTLEMENT IN KENYA, 1973, CHAMBERS, R. AND MORRIS, J. REASONS FOR LOW EARNING OF 3,000 PLOT HOLDERS
	EMBU DISTRICT	MAKERERE UNIVERSITY KAMPALA	A STUDY OF TIME ALLOCATION BY RURAL WOMEN AND THEIR PLACE IN DECISION-MAKING PRELIMINARY FINDINGS FROM EMBU DISTRICT, 1967, WILLIS, J. FACULTY OF AGRICULTURE
	GAKARARA (KIKUYULAND)	LONDON UNIVERSITY PHD.	GAKARARA-A STUDY IN THE DEVELOPMENT OF UNDER-DEVELOPMENT, 1974 O'KEEFE, P. DATA ON 300 HOUSEHOLDS IN VILLAGE WAGE MIGRATION AND EFFECTS ON SUBSISTENCE PRODUCTION
	NATIONAL	I.L.O. REPORT 1972	EMPLOYMENT, INCOMES AND EQUALITY, 1972, INTERNATIONAL LABOR OFFICE, GENEVA SUMMARIZES DATA FROM PREVIOUS SURVEYS AND GOVERNMENT SOURCES ON INCOMES, TYPES OF ACTIVITIES, POVERTY, MIGRATION, REMITTANCES HIRED LABOR, SEX AND AGE DIVISIONS OF LABOR. CASE STUDIES.

APPENDIX 4-Continued

COUNTRY	COVERAGE	SOURCE	TITLE AND COMMENTS
SUDAN	KHARTOUM OMDURMAN KHARTOUM NORTH	ILO REPORT 1976	HOUSEHOLD SOCIO-ECONOMIC SURVEY IN THE THREE TOWNS 1974 SAMPLE OF 2,614 HOUSEHOLDS
	SIX NORTHERN PROVINCES	SUDAN GOVT.	POPULATION AND HOUSING SURVEY, 1964-1966
	SIX NORTHERN PROVINCES SETTLED POPULATION	SUDAN GOVT.	HOUSEHOLD BUDGET SURVEY FOR THE SUDAN, 1967- 1968
	GEZIRA	SUDAN GEZIRA BOARD	UNPUBLISHED SURVEY OF INCOMES, 1974-1975
	TEN PROVINCES	ILO REPORT 1976	CESM (COMPREHENSIVE EM- PLOYMENT STRATEGY MIS- SION SOCIAL SURVEY OF VILLAGES 70 VILLAGES STRATIFIED SAMPLE. DATA ON INCOME, EMPLOYMENT, MIGRATION
	RAHAD	RAHAD IRRIGATION PROJECT	SAMPLE SURVEY OF SIZE- DISTRIBUTION OF HOLDING AND EXPENDITURE, 1969
	SUDAN	SUDAN GOVT.	CENSUS OF AGRICULTURE, 1964-1965. SIZE DIS- TRIBUTION OF HOLDINGS AND INCOMES
	SUDAN	ILO REPORT 1976	GROWTH, EMPLOYMENT AND EQUITY, 1976, INTERNA- TIONAL LABOR OFFICE, GENEVA. SUMMARIZES DATA FROM PREVIOUS SURVEYS PLUS NEW SURVEY DATA TAKEN BY ILO TEAM. USE- FUL HOUSEHOLD.

APPENDIX 4-Continued

COUNTRY	COVERAGE	SOURCE	TITLE AND COMMENTS
UPPER VOLTA	MOSSI PLATEAU REGION NATIONAL	ORSTOM 1975 6 VOLS.	ENQUETE SUR LES MOUVE- MENTS DE POPULATION A PARTIR DU PAYS MOSSI (HAUTE-VOLTA), 1975 DE- TAILED INFORMATION ON MIGRANTS, MIGRANT EARN- INGS SIGNIFICANCE IN MOSSI HOUSEHOLDS
	ZAONGHO	ETUDES RURALES	UNE COMMUNAUTE EVOLUTIVE MOSSI ZAONGHO (HAUTE- VOLTA), 1970, LAHUEC, J.P.
	BAMTENGA	RECHERCHES VOLTAIQUES 17	UNE FAMILIE MOSSI LALLE- MAND, S. 1977 DETAILED SURVEY OF ONE FAMILY- HOUSEHOLD GROUP
	ORD- OUAGADOU- GOU BANGUEMA GOUGHIN	SATEC, PARIS MESNIL 1970 9 VOLS.	CONNAISSANCE DU MILIEU ET VULGARISATION AGRICOLE DANS LE CAS DE L'OPERA- TION CENTRE MOSSI, 1970, MESNIL DETAILED INFORMA- TION AT VILLAGE AND HOUSEHOLD LEVEL (MENAGE)
	ORD- OUAGADOU- GOU BANGUEMA GOUGHIN	CAHIERS D'ETUDES AFRICAINES 12	LES LECONS D'UN ECHEC: LA CULTURE ATTELEE EN PAYS MOSSI (HAUTE-VOLTA), 1972, REMY, G. COMMENTS ON THE ANALYSIS OF THE SATEC SCHEME MADE BY MESNIL
	WEST MOSSI 19 RURAL LOCALI- TIES, TWO REGIONAL CENTRES, YAKO AND KOUDOUGOU	ORSTOM, PARIS 1972	LES MIGRATIONS DES MOSSI DE L'OUEST, 1972 KOHLER, J. ECONOMIC AND SOCIAL DATA VILLAGE AND HOUSE- HOLD (MENAGE)

APPENDIX 4-Continued

COUNTRY	COVERAGE	SOURCE	TITLE AND COMMENTS
UPPER VOLTA (cont.)	DONSIN (NOBERE)	RECHERCHES VOLTAIQUES 15	DONSIN: LES STRUCTURES AGRAIRES D'UN VILLAGE MOSSI DE LA REGION DE NOBERE (CERCLE DE MANGA), 1972, REMY, G. PARIS- OUAGADOUGOU.

APPENDIX 4-Continued

COUNTRY	COVERAGE	SOURCE	TITLE AND COMMENTS
UPPER VOLTA	NOBERE	ORSTOM, PARIS 1968	LES MIGRATIONS DE TRAVAIL DANS LA REGION DE NOBERE, 1968, REMY, G.
	PILIMPI- KOU, DAKOLA	ORSTOM, PARIS, 1970	ACTIVITES AGRICOLES ET TRANSFORMATIONS SOCIO-ECONOMIQUE DANS UNE REGION DE L'OUEST DU MOSSI, 1972 KOHLER, J.M.
	TENKODOGO REGION	MICHIGAN STATE UNIVERSITY	THE SOUTHERN FULANI FARMING SYSTEM IN UPPER VOLTA, 1979, DELGADO, C. SAMPLE 60 FARMS IN 2 VILLAGES, LIVESTOCK VERSUS FOODGRAIN PRODUCTION (ALSO DELGADO, 1977, 1978, 1980) HOUSEHOLD LABOR USE AND RESOURCE ALLOCATION, OUTPUT, INCOME, EXPENDITURE
		UNIVERSITY OF STOCKHOLM	HAVING HERDS: PASTORAL HERD GROWTH AND HOUSEHOLD ECONOMY, 1976, DAHL, G. AND HJORT, A.
GONDO- SOUROU	CENTRE VOLTAIQUE DE LA RECHERCHE SCIENTIFI- QUE 2 VOLS.		AGRICULTEURS ET ELEVEURS DE LA REGION DE GONDO-SOUROU, 1969, QUEANT, T. ET DE ROUVILLE, C.
DJELGOBE	CAHIERS DEL HOMME, PARIS		SOCIETE ET LIBERTE CHEZ LES PEULS DJELGOBE DE HAUTE-VOLTA, 1974, RIESMAN, P. ECONOMICS OF HERDERS

APPENDIX 4-Continued

COUNTRY	COVERAGE	SOURCE	TITLE AND COMMENTS
UPPER VOLTA (cont.)	MATIAKO- ALI, PIELLA, NAMOUNOU, DIABO	CENTRE VOLTAIQUE DE LA RECHERCHE SCIENTIF- IQUE	RELATIONS ELEVEURS-AGRI- CULTEURS DANS LES SOUS SECTEURS DE: MATIAKO- ALI, PIELLA, NAMOUNOU, DIABO, 1977 ECONOMICS OF HERDERS.

APPENDIX 4-Continued

COUNTRY	COVERAGE	SOURCE	TITLE AND COMMENTS
UPPER VOLTA	WHITE VOLTA VALLEY	AUTORITE DES VALLEES DES VOLTAS	LES ELEVEURS PEULS PENDANT L'HIVERNAGE 1976 DANS LES BLOCS A.V.V. DE WAYN, RAPADAMA, RAPADAMA SUD, MOGTEDO ET MOGTEDO BOMBORE, 1976, ROCHETTE, R. ECONOMICS OF RESETTLEMENT HOUSEHOLDS
	BERE	FAO	ANALYZE DE LA SITUATION FAMILIALE DES PARTICIPANTS A L'ACTION DE SEDENTARISATION DE L'AGRICULTURE AU VILLAGE DE BARE, 1974
	OUAGADOU- GOU	KIBONTRE, G. 1976	ETUDE DU PROCESSUS D'URBANISATION ET DU BUDGET FAMILIALE DES POPULATIONS A FAIBLE REVENUS A OUAGADOUGOU FAMILY BUDGET DATA
	OUAGADOU- GOU SQUATTERS	HAUTE- VOLTA MINISTERE DES TRA- VAUS PUB- LICS, DES TRANSPORTS ET DE L' URBANISME	LES QUARTIERS SPONTANES DE OUAGADOUGOU, 1974-75
	OUAGADOU- GOU	SKINNER 1974	AFRICAN URBAN LIFE: THE TRANSFORMATION OF OUAGADOUGOU, SOCIAL AND ECONOMIC DATA ON HOUSEHOLD COMPOSITION, OCCUPATION, INCOME AND EXPENDITURE

APPENDIX 4-Continued

COUNTRY	COVERAGE	SOURCE	TITLE AND COMMENTS
UPPER VOLTA (cont.)	YATENGA	ORSTOM 1975; AFRICAN ENVIRON- MENT, 1977	THE EVOLUTION OF AGRARIAN SYSTEMS: THE EXAMPLE OF YATENGA, 1975, MARCHAL, J.Y. VILLAGE LEVEL RESOURCE USE

NOTE: The list of studies and surveys for selected countries is not meant to be comprehensive. It is illustrative of the available data, the variety of sources and limitations of coverage.

APPENDIX 5

KINSHIP, ECONOMIC ROLES, AND ACTIVITIES IN
THE AFRICAN FAMILY-HOUSEHOLD

Examples from Kenya, Tanzania and Upper Volta

NOTES:

1. Family Household Members identified in terms of relationship to the Head of the Household.
2. Symbols used:
 - Mg = Manager
 - Wk = Worker
 - Ad = Advisor
 - In = Investor (of cash)
 - Dp = Dependents (only the very old or very young,
or those in school)
 - p = Part-time
3. The tables are designed to indicate different types of family household, and differences in the economic organization which are due to both differences in economic circumstances and differences related to variations in the sex and generational divisions of labor. In all cases the table represents a single time period. There are often seasonal changes in work patterns. Major activities and prime responsibilities are designated.

APPENDIX 5-Continued

KINSHIP, ECONOMIC ROLES, AND ACTIVITIES IN
THE AFRICAN FAMILY HOUSEHOLDS

An Example from Kenya

NOTES:

1. Households have very varied composition and though often based on core relations of a man and his wives, may include many other kin.
2. Varied sources of income which may all be of roughly equal importance, that is the subsistence production of food crops, ownership of cattle and goats, paid work, both casual and regular for both men and women, and substantial trading in a shop or through roadside sales of charcoal or other goods.
3. Much use of hired labor, often to replace family members who are engaged in paid work elsewhere.
4. Both boys and girls may be in school since enrollment is higher than in many areas of Africa.

SOURCES OF DATA: Kongstad and Monsted, 1980
Integrated Rural Survey, 1974-1975;
Nairobi: 1977

APPENDIX 5-Continued

KINSHIP, ECONOMIC ABILITIES AND ACTIVITIES IN AFRICAN FAMILY HOUSEHOLDS

(Example: Upper Volta Fulani) (Simplified)

	Herding (including intrusted herding)	Lease Clearing Preparation Hunting	Cash Crops	Food Crops	Dairying	Trading	Trading	Fetch Water	Fetch Firewood	Food Preparation	Care Goats (Sheep)	Spinning Cotton Weaving Sieve	Seasonal Work With Cattle	Big Game Hunting Cattle	Care Young Children	Paid Work
			Cotton	Millet Rice	Milking Feeding	W. In Cotton	Grain Livestock									School
Diallo (w. of M)	Hg/Wh	Hg/Wh	-	Ad	-	-	Hg/Wh	-	-	-	-	-	Ad	Hg	-	-
Telle (Senior Wife)	-	-	Hg/Wh	Hg/Wh	Hg/Wh	Hg/Wh	-	Hg/Wh	Hg/Wh	Hg/Wh	Hg/Wh	Hg/Wh	-	-	Hg	-
Syana (Second Wife)	-	-	Wh	Wh	Hg/Wh	Hg/Wh	-	Wh	Wh	Wh	Wh	Wh	-	-	-	-
Sidibou (1st Son)	Wh	Wh	-	Wh	-	-	Hg/Wh	-	Wh (p)	-	-	-	Wh	Wh	-	-
Moussa (Second Son)	Wh	Wh	-	Wh	-	-	Wh	-	Wh (p)	-	Wh (p)	-	Wh	Wh	-	-
Miarra (Grandson) Adult	Wh	Wh	-	-	-	-	-	Wh (for stock)	-	-	-	-	Wh	Wh	-	-
Sidiba (Grandson) 8-12 years	Wh	-	-	-	Wh (p) (cattle)	-	-	Wh (for stock)	-	-	Wh (p)	Wh (p)	-	-	-	-
Moussa (Grand-daughter) 8-12 years	-	-	-	Wh	Wh	-	-	Wh	Wh	Wh	Wh	Wh	-	-	Wh	-
Ayasha (Daughter-in-law)	-	-	-	Wh	Wh	Wh	-	Wh	Wh	Wh	Wh	Wh	-	-	Wh	-
Diallo Soni Nana (under 8 years)	-	-	-	-	-	-	-	-	Wh	-	Wh	-	-	-	Wh	-

APPENDIX 5-Continued

KINSHIP, ECONOMIC ROLES AND ACTIVITIES IN THE
AFRICAN FAMILY HOUSEHOLD

Example from Tanzania (West Lake)

NOTES:

1. Households vary in composition, they may consist of a man and his wife or wives, married sons and wives and young children, unmarried children, and perhaps a widowed mother, or divorced sister or other siblings. Hired labor is available cheaply from Rwanda and Burundi across the border, and is used in many households.
2. Sources of livelihood are varied, an agricultural basis but with other income from paid work. Women have fewer opportunities than men to get paid work in this region but new tea estates have provided employment recently.
3. Men grow the staple food crop, bananas, which are often inter-planted with the cash crop coffee. Women grow the annual food crops, maize and beans etc. Men brew the beer or pombe in this region, a job often done by women elsewhere in Africa.
4. New Ujamaa villages have been set up in this region in accordance with government policy (Ujamaa means family or communal in Ki-Swahili) and some households settle one or two members there to get extra land or income for the group. They seldom move the whole family there but keep their interests in "traditional" villages also.
5. Schools are well established in this region, originating with missions during colonial times. More children attend school than in many parts of Africa (60 per cent or more).

SOURCES OF INFORMATION: Rald, 1975; Boesen, Madsen and Moody, 1977

APPENDIX 5-Continued

KINSHIP, ECONOMIC ROLES AND ACTIVITIES IN AFRICAN FAMILY HOUSEHOLDS

An Example from Tanzania

	Perennial Crops: Coffee/ Bananae	Annual Crops: Maize/ Beans etc.	Livestock Cows/ Sheep/ Goats	New farm Ujamae Village	Fetch Water	Fetch Firewood	Prepare Food	Carry Bride from In-laws	Kill Yermin	Make Pambo for Sale	Trading (Dole)	House Repair	House Work	Casual Off-farm Work (Paid)	Regular Paid Work	School
MD:hi (In-lw)	Hg/Wb	-	Hg/Wb	-	-	-	-	-	Aa/Hg	Hg/Wb	Hg	Ag	-	-	Wb/In (Coop)	-
Mama Kimbu (Wife)	-	Hg/Wb	-	-	Hg/Wb	Hg/Wb	Hg/Wb	-	-	-	Hg/Wb	-	Hg/Wb	-	-	-
Mama Musa (Wife)	-	Hg/Wb	-	Hg/Wb	Wb	Wb	Wb	-	-	-	-	-	Wb	Wb (too isolated)	-	-
Kibira (Eldest Son)	Wb	-	Hg/Wb	Hg/Wb	-	-	-	-	Wb	Wb	-	Wb	-	-	Wb/In (teacher)	-
Simon (Son)	-	-	Hg/Wb	-	-	-	-	-	Wb	Wb	Wb	Wb	-	Wb/In (too isolated)	-	-
Mama Maria (Daughter-in- law)	-	Hg/Wb	-	Wb	Wb	Wb	Wb	Wb	-	-	Wb	-	Wb	-	-	-
Mark and Mama Jesu Is (Son, Grandson)	Wb (p)	-	Wb (p)	-	-	-	-	Wb	Wb	-	-	-	-	-	-	Wb
Buni (Hired Worker)	Wb	Wb	-	-	-	-	-	-	-	-	-	Wb	-	-	-	-

Anna, Fieata, Muluwa Mwashidi, and Mideya. Children less than six years old - dependents.

APPENDIX 5-Continued

KINSHIP, ECONOMIC ROLES, AND ACTIVITIES IN
THE AFRICAN FAMILY HOUSEHOLD

Example from Upper Volta (Fulani)

NOTES:

1. Fulani households normally consist of a man and his wife or wives, married sons and their wives, unmarried children and grandchildren, and (sometimes) siblings. There are few non-family members and few hired laborers. Workforce is on average 6-8 people.
2. Most of the work is agricultural, largely concerned with livestock, except for trading. Most cash comes from livestock sales and from work with cattle entrusted to them by Mossi households, plus the income from the sale of small amounts of eggs, milk, sorghum, and cotton. Over 3/4 of the value of agricultural production, mostly from livestock, is sold (cf. about 1/6 in Mossi households). Heavy involvement in market economy of Upper Volta occurs. Note that except in harvest months, 50% of household budget is spent on food purchase.
3. Seasonal changes in work organization occur, involving changes in sex and generational divisions. For instance, extra herding needs in July are met by older boys and girls, and by older members of the household. Also in July men help weed cereal fields in addition to regular tasks (season of peak labor demand). Men also get water for stock in July (hot season).
4. Very little paid work or use of hired labor. (Some young boys may herd animals for richer households for payment.) Cash comes mainly from livestock sales.

DATA SOURCES: Delgado, 1979, 1980

APPENDIX 5-Continued

KINSHIP, ECONOMIC ROLES AND ACTIVITIES IN
THE AFRICAN FAMILY HOUSEHOLD

Example from Upper Volta (Mossi)

NOTES:

1. This example is of the poorer northern region of the country, and the family household is that of a large extended family, including both married sons and their families and numerous younger children. The core relationship is polygamous. Included in the household is a sister's son who has a traditional right to belong, a hired laborer who comes from a poorer landless family, and a "tenant" who has borrowed land in accordance with custom and makes some contribution to the household in return.
2. The support system for the group includes subsistence food grains grown on common fields as well as other food crops grown on the personal fields, cash crops grown individually, some trading, and an important income from migrants' remittances. There is some casual local paid work. Often young boys or girls (7-15 years) are lent to other households to work for payment in cash or produce. There are also associations of young people (belonging to an age-set) who contract to work for one or two days a week at weeding planting, or digging, or perhaps in brick-making or other jobs. They are paid in cash and in produce and are often given meals.
3. Although some of the work is very clearly divided on a sex and generation basis, there is considerable changing of tasks on a seasonal basis, especially in agricultural work such as weeding and harvesting.
4. Very few children go to school in Upper Volta. Even very young children are assigned household tasks.

SOURCES OF DATA: Lallemand, S. 1974
Delgado, C. 1980

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