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# SURVIVAL AND ACCUMULATION STRATEGIES AT THE RURAL-URBAN INTERFACE: A STUDY OF IFAKARA TOWN, TANZANIA

Anthony Chamwali

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Research Report No. 00.3

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Anthony Chamwali Institute of Development Management, Mzumbe

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#### **Abstract**

Traditionally, small towns have been viewed as an extension of the exploitative arm of state capitalism and an instrument of rural under-development, draining cheaply obtained resources from the rural areas to the large cities. This study takes a different view, that small towns may have a positive role in the development of the surrounding rural areas. The practice, in many African countries, of urban households having strong ties with their original rural homes, and, often, having other households in the rural areas, with the accompanying rural-urban, and urban-rural flows of cash and goods, justify this position. Small towns also have a potentially positive role in rural transformation through the provision of goods and services that act as vital inputs into agricultural or mining processes; they provide a market for these commodities, and link the hinterland to national and international markets.

This study, therefore, looks into the reciprocal rural-urban and urban rural relationships adopted by households in Ifakara, Tanzania, in their survival and accumulation strategies. A sample survey of 400 households from Ifakara town and four rural villages surrounding the town was conducted. Data on household poverty levels, rural-urban links, shelter quality and adequacy and on community participation by the households were collected and analysed. The households were ranked according to Annual Expenditure Per Adult-equivalent.

62.5% of the households were below the poverty line. Ifakara town households used the rural land extensively in their survival and accumulation strategies. 86.3% of the households in Ifakara town had farms in the surrounding rural villages. The rural households also served as a market for some town-based petty traders and bus operators, and a few town residents were employed in some of the big rural farms. On the other hand, Ifakara town was a source of supplies and services to the rural households, a market for the rural products, and a workplace for some rural residents.

Other survival and accumulation strategies adopted by the households included doing piece work, changing the type of diet taken or reducing the number of meals a day, doing petty businesses, selling livestock, resorting to fishing, brewing and selling local liquor or coconut wine, pottery, and selling local carpets. Some households 'joined forces' to form clubs, associations and co-operative societies as a means of surviving and accumulating wealth.

Poverty for most of the households is attributed to their dependency on farming as the only source of income, and cultivation of small farms. Diversifying sources of income, cultivation of larger farms, and being employed throughout the year as well as encouragement to grow cotton as a cash crop should go a long way to helping these households.

The cost of farm inputs, farm implements, education, and medical treatment are also too high, and loans are not easily available. These costs should be looked into. Alternatively there should be a facility whereby the households can easily get credit to meet the costs.

#### 1. INTRODUCTION

Small towns as potential catalysts for rural development in Africa have not received the attention they deserve. Most development research has traditionally focused on the large and primate cities in Africa. In addition, much foreign aid has been directed to rural development in the narrowest sense, meaning agriculture, and this implies that rural change is an autonomous process that can be divorced from the urban component (Baker, 1990).

This view of a dichotomous relationship between the rural and urban economies must be rejected as the two are interdependent and complementary. For example, the role of small towns may have a positive influence on rural development and agricultural productivity through the provision of a range of goods such as agricultural inputs, consumer goods, urban cash flows and other forms of flows, and services (agricultural extension, welfare services, and the diffusion of innovation). In turn, rural hinterlands provide resources such as food, payment for public services through taxation, labour, and demand for urban goods and services which enable small towns to expand their economic and social functions.

Much rural income is not derived directly from agriculture but takes the form of off-farm and non-farm income generated by farm households, often in small rural towns. In some cases, as much as one-third of rural income in sub-Saharan Africa is derived from non-farm sources. It appears that in the African context, it is those rural households which are most adept at utilising small town opportunities and exploiting urban niches, in addition to using agricultural land resources, that are most successful in ensuring household survival and pursuing accumulation strategies. By contrast, and at the risk of oversimplification, the least successful households are those which are non-diversified. Rural-urban linkages are important factors in development studies.

#### 1.1 Statement of the Problem

As a consequence of the deterioration of African economies since 1970s due to oil price shocks, western recession, high interest rates, reduced demand for primary products and associated balance-of-payments deficits domestic growth rates have declined, triggering a contraction in urban formal employment and declining real incomes - with the result that the rural-urban income gap has substantially narrowed or, in some cases, even closed. It has been observed (Jamal and Weeks, 1988) that during such periods of depression, it is always the weak and vulnerable who are least able to protect themselves against falling real incomes. Yet in spite of the seemingly insurmountable difficulties, some communities manage to survive reasonably well. There is need to identify and understand strategies that allow such households and communities to survive.

#### 1.2 Objectives and Significance

The objectives of the research are:

- (a) To determine household poverty levels in Ifakara town and in four rural villages surrounding the town.
- (b) To identify the various coping mechanisms and survival strategies adopted by households in the five locations when faced with environmental stress or economic hardships.
- (c) To find out how the rural households exploit Ifakara town facilities, and how the town households exploit rural resources in their survival and accumulation strategies.
- (d) To identify the different roles played by the town of Ifakara and other urban centres in the development of the four rural villages and how the four villages, do, in turn, influence the development of the town.

Not much is known about the nature of rural-urban linkages and their relationships to the type of survival and accumulation strategies adopted by households in Tanzania (let alone households in the five locations). Since some of these strategies are specific to certain location and cultures, there is need of finding out the type of strategies adopted by households in Ifakara in coping with poverty.

#### 2. LITERATURE REVIEW

To-date most development theory and practice have focused on either "urban" or "rural" with little consideration of the interrelations between the two. The very distinction between "rural" and "urban" implies a dichotomy which encompasses both spatial and sectorial dimensions, and it is often assumed that agriculture is the principal activity of rural population whereas urban dwellers are thought to engage primarily in industrial production and services.

In reality, things tend to be more complex. The ways in which nations define what is urban x what is rural can be very different which makes generalisations quite problematic. A town < 200,000 inhabitants, for example, is a very big town in East Africa, while in parts of Asia, it would be counted as a tertiary level town. The boundaries of urban settlements are usual  $1\$  blurred than portrayed by administrative delimitation, especially when town's use of resources, and population movement (including temporary and seasonal migration) me considered. In south-east Asia, for example, the growth of extended metropolitan regions where

agricultural and non-agricultural activities are spatially integrated makes the distinction between rural and urban problematic (Tacoli, 1998). A large number of households in urban areas tend to rely on rural resources and rural populations are increasingly engaged in non-agricultural activities.

In the African context at least, it is inappropriate to distinguish between rural and urban sectors, and by extension rural and urban poverty, as being separate and distinct phenomena because (Baker, 1992):

- (a) Many rural households in Africa rely on remittances (and goods) from urban-based family workers (although there are also rural-urban flows). Remittances from urban centers are used for a variety of purposes including the maintenance of rural consumption levels; investing in a family *shamba*; buying land; educating children; etc.
- (b) The existence of 'one-family-two-households' phenomenon whereby a family may behaving one household .in town and another one in the rural areas. The spatial effects of this household splitting may throw up some incorrect conclusions. For example, although urban poverty is related to poor housing conditions it should not be assumed that all slum dwellers are necessarily poor. A man in town living in an unsanitary one-room shack may appear poor but this may not be the case, since for him the town is not 'home'. Thus resources are not squandered on accommodation improvements in town but are accumulated for investment in the rural home. Many urban workers consider their real home as the rural *shamba*.
- (c) The attachment to rural land in the African context is economically important as a source of food and as a place to retire to. Many young males in Kenya, for example, migrate to towns to accumulate cash to buy rural land. Thus migration in this case is a process of not escaping from the countryside but returning' to it it is a process of asset accumulation.

#### 2.1 Changing Perceptions on the Role of Small Towns in Rural Development

The interactions between small towns and their rural hinterlands have been viewed from two principal perspectives (Kamete, 1998). The first regards small towns as an extension of the exploitative arm of state capitalism and an instrument of rural underdevelopment. This argument suggests that small towns live off the surrounding rural countryside by exploiting its human, financial and material resources. These resources are often deliberately under-priced to enable the small town to pass on to the larger cities cheap raw materials for consumption and/or value-adding and export.

Another school of thought maintains that small towns have a potentially positive role in rural transformation through the provision of goods and services that act as vital inputs into agricultural or mining processes. Towns also provide a market for these commodities and, in addition, towns link the hinterland to national or international markets, and provide the rural populations with off-farm employment opportunities. In this study, it is assumed that small towns may have a positive influence on the development of the surrounding rural areas and vice versa.

#### 2.1.1 Small Towns and Rural Development: A Debate

Development debate of the last 40 years (since independence in the 1960s) has mostly centred on the changing relationships between agriculture and industry and on the optimum allocation of investment between the two sectors. The attitudes and responses by governments, donor and lending institutions and academics to urbanisation in Africa has fluctuated from approaches which view towns as positive structures for development to negative ones which view them as causes of underdevelopment. In the early years of independence, urban development was considered beneficial for national development. Urban-based industrialisation policies were viewed as essential in bringing about change in agricultural-based economies. By the 1970s, when it was clear that these policies had failed, urbanisation was viewed as a parasitic process which led to underdevelopmerrt, and neglect of agriculture.

The specific understanding of a complementary relationship between urban and rural phenomena and of reciprocity in urban-rural interaction was postulated by Walter Christaller (1933; 1966) with his central place and hinterland concepts. Hoselitz (1955) attempted a typology of cities on the basis of whether they are 'generative' or 'parasitic' in the sense that they produce beneficial or adverse effects on rural hinterlands. Hoselitz's contribution is important in that it raised the important issue regarding the potential role of urban centres for rural development. His approach increasingly infiltrated the development literature as well as the framing of development projects in the 1960s and 1970s. More particularly, the growth pole ideas of Perroux (1951), later to be modified in geographical terms by Boudeville (1966) became the dominant paradigm. The growth pole/growth centre theory suggests that by concentrating investment and innovation in a few carefully selected centres, development will either spontaneously or by inducement 'trickle down' through the region.

Evidence to-date does not appear to support the theory. The 'trickle down' effects which were supposed to follow have not had the anticipated results and spin-off effects have benefited, at best, large component suppliers and contractors in other large centres and the "spread effects to the immediate hinterlands of centres of innovation are minimal in comparison with linkages that connect these centres with numerous distant places" (Hansen, 1981). More recent work has questioned the relevance and applicability of the top-down approach to solving problems of rural poverty and the focus has now turned somewhat to the utility of a bottom-up approach

involving small centres and their immediate hinterlands. Amongst the best known proponents of the bottom-up strategy are Stohr and Taylor (1981) who argue:

Development 'from below' considers development to be based primarily on maximum mobilisation of each area's natural, human, and institutional resources with the primary objective being the satisfaction of the basic needs of the inhabitants of that area. In order to serve the bulk of the population broadly categorised as 'poor', or those regions described as disadvantaged, development policies must be oriented directly towards the problems of poverty, and must be motivated and initially controlled from the bottom (Stohr and Taylor (op. cit.)).

Accordingly, the approach sees the inherent validity of a basic-needs strategy which is labour intensive, small-scale, rural-centred, using regional resources and relying upon 'appropriate' technology. A fundamental reservation which can be made against these bottom-up community approaches as perceived by Stohr is the reliance upon the commitment of the grassroots, without concomitant support and guidance from a national, and top-down leadership. The strategy has always been associated with the so-called Integrated Rural (or Area) Development. Implicit in this should be the conclusion that town-country relations are one of the focal points in integrated rural development, and that there is an operational synergy to be obtained in joint efforts between programmes for urban development in rural context and integrated rural development when the two approaches are launched simultaneously.

Towards the end of the 1970s, USAID initiated the concept of 'Urban Functions In Rural Development, (UFRD)' which attempted to investigate and clarify the symbiotic relationship between urban centres and rural areas. This concept was concerned with an analysis of settlement system within a region. The analysis involved first, the identification of settlements that could most effectively act as service, production and trade centres for their own populations and that of surrounding areas. Second, a determination of the strength of the linkages among the settlements themselves, and between them and their rural hinterlands. Third, a delineation of areas in which people have little or no access to town-based services and facilities (Rondinelli and Evans, 1983) and finally areas that would require a number of necessary interventions to promote the improved functioning of the rural economy were identified.

In 1985, the UFRD methodology was modified to enable the conceptualisation of ruralurban dynamics to be 'more operative for feasible programmes' (Karaska and Belsky, 1987:43). Under the revised approach, a sectorial distinction was made between the smaller towns (market towns) with their emphasis on the marketing of agricultural products, and the larger towns (secondary cities) where the focus was on manufacturing and services. /Er0e (1992) discusses the relevance of five different theoretical approaches towards the role of small towns: the growth pole approach and the dependency approach (introduced in the 1950s and 1960s), the functionalist approach, the territorial approach and the 'economy of affection' approach, which have all been introduced since the mid-1970s.

#### 2.1.2 The Growth Pole, Dependency, and Functionalist Approaches

The *growth pole* approach was a theoretical mixture of Perroux' (1951) and Schumpeter's (1942) concept of the propulsive firm combined with B.J.L. Berry's (1961) approach towards innovation diffusion. The dominant idea in the *growth pole* approach is that economic growth can be introduced from the outside through an economic and technological injection. The smaller towns are regarded as spatial nodes for this diffusion of economic growth.

The proponents of the *dependency or core-periphery* approach regarded economic development and underdevelopment to be opposite sides of the same coin. Santos (1979) turned this general approach towards the relationship between spatial structures (centreperiphery) into a specific theory of urbanisation. Common to core-periphery approaches was the concept that infrastructural development, also in smaller towns, allow for capitalist penetration into the hinterlands to outstrip local production. *JErQs* observes that the approach neglects local development dynamics.

The functionalist approach mainly discusses the functions of the smaller towns. The functions, particularly collection and distribution, are performed by hierarchically arranged centres. Critics point out that the approach is not much concerned with local people's needs, and that focus on the functions of smaller towns may lead to neglect of the overall economic and political environment for the development of smaller towns.

#### 2.1.3 The Territorial Approach

In the *territorial* approach the focus is not on small towns *per se*, but on a more holistic approach towards regional planning. The growth-pole, dependency and functionalist approaches can all be identified as top-down approaches despite their different ideological points of departure. The territorial planning approach, on the other hand, focuses on self-reliant development process with an integrated mobilisation of human and material resources of specific historically defined regions (Gore, 1984). The agropolitan approach, which focuses on rural development and on egalitarian agrarian structure as preconditions for development (Friedmann, 1988), belongs to the territorial planning approach. Development from the agropolitan approach is understood as a set of territorial-based processes of valued social, economic and environmental change. The approach has three principal provisions:

As a *concept in socio-economic change*, agropolitan development refers to a self-reliant development and a betterment of rural life through increases in production and extension of basic services (clean water, primary education, health centres etc.).

As a *geographical concept*, the agropolitan approach refers to a bounded space, a territory, which defines an area for common decision and action.

As a *political concept*, the agropolitan approach refers to the entire district population as apolitical community to which is ascribed a capacity for self-determination in matters of common concern. Friedmann (1988) defines an agropolitan district as containing, at least, one small urban centre and a population of between 40,000 and 60,000 persons. Agropolitan districts are relatively small and the population within the district can reach the centre within a few hours. The purpose of the urban centre is to strengthen its surrounding rural base and to improve the life of the community. Rural development is on the agenda, and the role of the urban centre is to support this development through provision of services and social infrastructure

The region is brought into focus in the agropolitan approach, and the independent decision-making process for households, villages and districts is taken as a fundamental principle. The critics to the approach, however, point out that the approach:

romanticises small-scale activities;

sees countries on the global periphery forever mired in rural backwardness;

does not deal with political and economic realities; it is Utopian, romantic and naive; and

substitutes spatial structures or territory for class structures.

#### 2.1.4 The Economy of Affection Approach

The concept of economy of affection' refers to the various networks of support, communication and interaction among structurally defined groups connected by blood, kin, community, or other affinities. It links together in a systematic way a variety of discrete social and economic units which could be autonomous, thus giving rise to economic flows and exchanges based on criteria other than those guiding economic behaviour in a capitalist or a socialist type of economy (Hyden, 1985:214). In contrast to the other approaches, it is not an approach to development, but rather an approach to explanation.

The economy of affection has three functions: one, it provides the basis for survival strategies for poorer segments of the population; two, it creates the framework for social maintenance with strong elements of patronage and clientalism; and three, it provides resources, (financial assistance for education, informal credit, labour assistance, lodging, etc.) to support members of the network (Hyden, 1983). The investment strategies are characterised by diversification to minimise risks and to provide a resource base for many members of the network. The economy of affection is thus a social arrangement of redistribution and investment based both on the immediate life and long-term perspectives.

There are differences between the economy of affection approach and the agropolitan approach as follows:

- \* The two approaches have different targets for the development process. While the agropolitan approach regards the structures to be the necessary backbone of a society the same structures under the economy of affection approach are seen as a hindrance for development which has to be broken for development to occur.
- \* The agropolitan approach focuses primarily on participation, self-determination and provision of basic services for the population. The economy of affection approach on the other hand focuses primarily on creation of economic growth as a precondition for the provision of social services.
- \* Under the economy of affection the state apparatus are regarded as having an exploitative function via patron-client relationships whereas the agropolitan approach expects the state to provide the necessary economic foundation for an agropolitan strategy and, in some cases, execute a closure policy in selected regions to avoid external exploitation.
- \* Power structures are identified under the agropolitan approach to be between the local and central levels; while Hyden identifies the most decisive power structures to be within the economy of affection. These latter power structures penetrate both the local and central levels and therefore cannot be classified with specific spatial structures.
- \* The agropolitan approach is very general, developed with reference to the rural areas in Asia, parts of Africa and in more urbanised regions of the Americas and Western Europe. The economy of affection approach on the other hand relates specifically to the conditions in African countries, based on experiences from East Africa.
- \* Finally, the two approaches focus on different segments of the population. Friedmann focuses on the rural population and for him the household economy is the central economic unit (Friedmann, 1990). For Hyden, the key to successful national economics is the development of constructive relations between the urban centres and their hinterlands emphasizing how cities and industrial development are the powerhouses for economic development, and not rural development (Hyden, 1986). In his approach, urban entrepreneurs are seen as the mediators of economic development suggesting that the roots of present crisis in Africa are urban rather than rural, and that part of the problem is that African cities lack local manufacturers and merchants with ambition and the ability to improvise and innovate.

The following are some of the prerequisites which would appear necessary for a well-functioning rural-urban and urban-rural reciprocity in Africa (Baker and Pedersen, 1992:13):

- The economic systems in most African countries have been highly centralised. Services andother activities operating in small towns are not independent units operating in a free - market economy as implicitly assumed in the UFRD approach. Many of them are branches of large monopolistic or semi-monopolistic public, parastatal or private enterprises. Others are small private enterprises. But both parastatals and private enterprises tend to be linked by strongly hierarchical structures governed by patronclient relationships as much as by market forces. These patron-client relations are often highly exploitative of the lural areas. While the parastatals may be privatised, the patron-client relations are not easily eliminated because, given the unstable economic, political and environmental conditions in most developing countries, they serve as a safeguard against social risks for the buyers and small traders. They assist small businessmen with limited access to secure the necessary services and commodities. Under these conditions the identification of service centres with potentially optimal locations is no guarantee for the actual delivery of scarce commodities and services, unless, the social, economic, political and climatic instability and risks are reduced.
- \* There has been a lot of emphasis on decentralisation of political and economic decision-making to the local level. This decentralisation is expected to provide the means through which the articulation of local needs and priorities could be made and would stimulate both rural and urban development.
- \* A third factor is the development of physical, social and institutional infrastructure. This is an important element because it removes constraints which otherwise would inhibit or distort the emergence and expansion of rural-urban linkages and exchange.
- \* A fourth factor concerns the kinds of macro policies pursued by governments, which include the domestic terms of trade between agriculture and the rest of the economy. Evans (1990) demonstrates how the domestic terms of trade directly influence farming incomes, food prices, wage differentials between farm and nonfarm employment, and the propensity for labour to migrate out of agriculture to urban areas for jobs. Improvements in the rural terms of trade can have differential impacts among farmers. Improving the rural terms of trade leads to higher food prices which benefits surplus producers, but it may certainly be detrimental to the rural landless and smallholders who are net purchasers of food.

#### 2.2 Survival Strategies

A strategy can broadly be defined as a plan of action which has as its objective to move an individual (or a household) or a group of individuals from a specified present state of affairs to

a preferred future position. Strategies are aimed towards bringing change, usually from a problematic condition (point A) to a desirable future condition (point B), and include the overarching direction to follow and a set of identifiable steps, events or components essential for the effective implementation of the strategy. The term 'strategies' is often used as a synonym for approaches to and models for development.

Survival strategies are the activities of poor people in times of stress which they see as crucial for the continued running of their households. Beck (1989:23) identifies four main types of survival strategies that households usually adopt:

- a) Use of common property resources (GPRS): these include gleaning, collection of fuel, and collection of wild foodstuffs.
- b) Changes in eating and food preparation
- c) Share-rearing of livestock
- d) Mutual support networks and power.

The 1995 Participatory Poverty Assessment PPA found that the poor, in Tanzanian villages, resort to six basic strategies to survive - strategies which also ensure that the poor remain poor (Narayan, 1997:26). These strategies are doing piece work, doing petty businesses, making changes in the type of diet, reducing the number of meals taken in a day, taking loans from traders, and selling cattle. Other survival strategies are selling assets, migrating, and forming rotating credit, religious, and burial clubs.

At the rural-urban interface, Foeken and Mwangi (1998:19) identify two main types of survival strategies: urban and rural strategies, both of which can be split into either non-farming or farming strategies. Urban non-farming strategies refer to all incomegenerating activities such as from employment or self-employment separate from income derived from agricultural activities in town. Most migrants to towns look for regular formal employment. When they fail to be employed in the formal sector, they resort to irregular, casual work, or try to make a living from some kind of self-employment, including prostitution, begging and criminal activities.

Urban farming strategies are adopted by those who manage to get access to a piece of land within the town boundaries. Urban farming includes all types of agriculture within the urban environment and has grown enormously in importance since the 1980s. Rural non-farming strategies concern the socio-economic relationships of urban households with relatives in the 'home area'. Some poor urban households depend, at least partly, for their livelihood on sources of income, mainly through remittances, from the rural homes. Rural farming strategies are farming activities carried out by one or more members of an urban household in either the rural home or the surrounding rural areas.

A number of case studies on survival strategies at the rural-urban interface have been reported. Writing about town-based pastoralism in Eastern Africa, Ornas (1990) observed that urban centres functioned as safety valves for pastoralists against negative effects of increased population pressure and prolonged periods of drought. Andreasen (1990) found that, in Thika, Kenya, the strong attachment of urban inhabitants to their rural homes discouraged the building of good commercially produced housing for owner occupancy. The urban-rural linkages were reflected in low commitment to investment of resources in the urban setting resulting in ideal market for rented housing in Thika. Andreasen also found outthat 60 percent of the families with access to rural land had their families split in two households, one at the rural home and the other at Thika.

Holm (1992) observed that non-farm activities such as business, petty trade, and small scale manufacturing in informal sector (e.g. production of local liquor, *pombe*, and bamboo wine, *ulanzi*) drew large numbers of migrants to Makambako town, Tanzania. As there was great competition among the migrants, and their activities were subject to seasonal fluctuations, their survival strategies could not be based solely on non-farming activities. They needed village ties in order to retain their rights of access to rural resources. Consequently, they visited their villages of origin quite often to participate in weddings, funerals, and other traditional ceremonies or to farm their *shambas*. Their urban survival was based on rural subsistence economy - the majority being farmers in combination with other occupations, and nearly all households cultivating food for their own consumption. They used rural networks to provide food for their own consumption and for sale in the market. They operated as food producers in a subsistence economy and as producers/consumers in a market economy.

Schhter (1990) distinguishes between two types of survival strategies: In an urban strategy, rural resources and contacts are exploited to enable a person stay in town, while a rural strategy is adopted by a person who aims to return to the rural village and the work in town is a means to accumulate funds for investment in the village. She observed that the dominant survival strategy among low-income women householders in Harare was an urban strategy.

## 23 Accumulation Strategies

Generally capital accumulation requires investment into profitable ventures. Investment can be defined very broadly to include anything involving the acquisition or purchase of assets that will bring future returns. It thus includes expenditures on marriage and kinship relationships; ceremonies; health; education; training; migration; physical assets such as land, livestock, tools, equipment, machinery, housing and other buildings; bicycles and other consumer durables; and even expenditures on financial assets and jewellery.

Investment needs finance and savings. The propensity of a household to save is a function of income and investment opportunity. An income is obtained either by (a) working i.e. providing

*labour*, or (b) owning property (like a combine harvester or a blast furnace), that is, providing *capital* or (c) doing both activities. The two factors of production are used to produce the goods and services man requires. Rural populations do also save. But the minimum income threshold at which savings can begin is likely to be lower in rural areas than in cities, due to the lower costs of living, the household's greater capacity to feed itself, and the limited availability of consumption uoods.

Capital represents a stock of goods and services not devoted to immediate consumption but operated to increase the volume of consumption in future periods, either directly or indirectly, through production (Firth and Yamey, 1964). The stock of capital at any moment of time is the sum of the existing assets i.e. resources capable of yielding goods and services in future periods. The resources are largely material, but there are also immaterial assets such as technical knowledge and skill. A distinction can be made between *real capital* - the actual property, and *money capital* - a sum of money available to purchase or hire real capital. Investment means adding to real capital like building a new factory. This gives rise to new incomes. Investment is a risky venture, and most people minimise the risk through diversification.

Some accumulation strategies adopted by households include land holding, entrepreneurship, keeping large herds of cattle, poultry production, trade, money lending, sharecropping, and inheriting wealth. Others are own cultivation, land leasing, non-farm activities, salaried employment, and political accumulation pursued through positions in village governments and co-operatives (Pincus, 1996).

## 3. THE RESEARCH QUESTIONS AND HYPOTHESES

#### 3.1 The Research Questions

The research will be guided by the following questions:

- (a) What are the levels and distributions of household expenditures and poverty in Ifakara town and in the four rural villages surrounding the town?
- (b) What survival and accumulation strategies are adopted by households in Ifakara and in the four villages?
- (c) What kinds of links do the village households have with the town of Ifakara? How do the households use both rural and urban resources in their survival and accumulation strategies?
- (d) What is the degree of economic differentiation among the households?

(e) What are the characteristics of households that adopt successful survival and accumulation strategies and what are the characteristics of those which are poor or vulnerable to poverty?

#### 3.2 Research Hypotheses

- (a) Only farming households are more vulnerable to poverty.
- (b) Resource inflows from relatives and kin living in urban areas form a significant source of income for the rural households.
- (c) Rural households which use urban opportunities and assets (like ownership of income-generating assets in town, marketing of rural produce at the town market, etc.) to diversify income sources are more successful in ensuring household survival and pursuing accumulation strategies.

#### 4 RESEARCH METHODOLOGY

#### 4.1 The Sample and the Questionnaire

The data were collected from Ifakara town and from Lumemo, Mahutanga, Kibaoni, and Kikwawila rural villages that surround the town. The target population was all the households in the five locations. Table 1 presents some characteristics of the locations.

The households were first stratified by village, and then eighty households were selected systematically from a list of household heads living in the village, making the total sample size of 400 households or 2.7% of the total number of households. The households were visited by 10 interviewers between 15/11/98 and 25/11/98.

A household questionnaire that had 45 questions divided into five sections, was used for data collection. Section one of the questionnaire had 16 questions on personal particulars for each individual in the household, the immigrants of Ifakara, and on household's social and economic indicators including monthly household expenditures on various items. Section 2 had 6 questions on rural-urban links. Section 3 had 9 questions on infrastructure and availability of social services. Section 4 had 6 questions on shelter quality and adequacy, and the last section had 7 questions on community participation. Most of the questions had preceded answers. A community questionnaire collected community data from each location. The interviewers were trained for a week before conducting the survey. The training included practice in filling in the questionnaires.

**Table 1: Characteristics of the study Locations** 

Variable		Total				
	Ifakara	Lumemo	Mahutanga	Kibaoni	Kikwawila	
Population (1998)	61982	4006	3827	8400	5971	84186
Area (acres)	1250	6000	3016	4760	2500	17526
No. of Households	12398	602	751	1403	1066	16220

#### 4.2 Methods of Data Analysis

The unit of analysis is the household but aggregated by village. The data is analysed in the following four stages:

(a) In stage one, the households are ranked according to annual expenditure per adult-equivalent. The analysis follows the approach used by Collier, et al (1986), in which the number of adult-equivalents in a household is first calculated using the calorific requirements by age and gender for East Africa (Lathan^ 1965), and then the numbers are adjusted for economies of scale. The Annual Expenditure per Adult-equivalent is obtained by dividing annual household expenditure by the adjusted number of adult-equivalents. The poverty line used is the World Bank's \$1 a day for each adult-equivalent.

#### Household expenditure includes:

- (i) The amount spent to purchase goods and services used for living purposes,
- (ii) The value of goods and services received as part of pay, goods that are home produced and consumed (including rental value of owner-occupied dwelling) or goods received from other sources, and (Hi) The amount spent on taxes, contributions, insurance premiums, lottery tickets, interest on debts and other non-consumption items.
- (b) In stage two, sources of household incomes and their relationships household poverty are analysed. The three hypotheses are also tested.
- (c) In stage three, some social indicators of poverty are analysed, and
- (d) In stage four, survival and accumulation strategies, at the rural-urban interface, adopted by Ifakara households are presented.

#### 4.3 Limitations and Justification

Since all the study locations, including Ifakara town, have been selected purposively, the findings of this study cannot be generalised to households in Kilombero district or in Tanzania as a whole. They only pertain to households in the five study locations.

Ifakara has been selected for study because while it is an important commercial centre for Kilombero and Ulanga districts, it is also one of the places where a vast majority of the households live in poverty. Ifakara is a good supplier of rice in Tanzania, and during the harvest season many traders from all over the country flock to the place to buy rice.

#### 5. HISTORICAL AND GEOGRAPHICAL OVERVIEW OF IFAKARA

Ifakara is situated at 8°08' south and 36°40' east, about 5 km. north of the Kilombero river. The town is the headquarters of Kilombero district, and fulfils, inter alia, important administrative, marketing, service, and related functions not only for the district but also for other bordering districts, especially Ulanga district. The town is one of the important Tanzania and Zambia Railway Authority's (TAZARA) stations, making it easily accessible from Dar es Salaam, Mbeya. and Zambia. It is also along the main road from Mahenge and Malinyi to Kilombero, Mikumi, Morogoro and Dar es Salaam.

Kilombero district, formerly part of Ulanga district became a separate district in 1974. The district is mostly in the Kilombero river valley, and has an area of 14,918 sq. kms. of which 445.896 hectares are cultivatable. Forests cover about 80% of the district. The great agricultural potentialities of the Kilombero valley have attracted foreign investors including attention for Germans under the Rufiji-Nyasa Expedition (1909-1910) seeking a possible railway route through the valley. This was followed by British authorities looking for a possible rail link from the Central line to Manda on Lake Nyasa in 1929. Agriculturists like A.M. Telford of the Sudan Plantations Syndicate assessed the prospects of agricultural development and found that there were approximately 240,000 acres of fertile soils suitable for agricultural development, but large investments for dike-building and irrigation were rejected as unprofitable. Studies carried out between 1932 and 1940 also made similar conclusions that it would be too expensive to irrigate the Kilombero valley and make the Rufiji-Kilombero river system navigable. However, in 1961, the FAO advocated substantial investment in the Kilombero valley for the purpose of utilising new areas by the installation of irrigation works. Consequently, the Lumemo experimental farm was established near Ifakara in order to obtain information about the cultivation of suitable crops in the Kilombero valley. The farm was abandoned in 1969 after heavy floods had caused serious damage to it.

Generally, Kilombero district has high temperatures (hot whether conditions) and has a bimodal rainfall pattern, namely (a) short rains period that begin towards the end of November and end in January or February (Kyulule and Kihiyo, \996). The long rains usually start in March and end in May or June. The average temperature in the district is 32°C and the average rainfall amount to 1600 mm. The most notable feature of the Kilombero river is that it gets flooded, sometimes making Ifakara town flooded too, most of the time during the long rains making the town reachable mainly by TAZARA railway line.

More than 95% of the population in Kilombero district depend upon agricultural products; but only 36% of the labour force is involved in agricultural production (Kyululi and Kihiyo, op.cit.). Production levels are low being about 66.8% of their optimum levels. This is attributed to bad climatic conditions and low levels of fertiliser use, and adoption of poor technology. About 25% of the crop is lost due to wild fauna, poor storage and inefficient transportation systems. On the Average a household in the study villages cultivated 2.72 acres. Land is easily procured in Ifakara. The main cash and food crop cultivated in Ifakara is rice.

Among the major establishments in Ifakara are the Kilombero Agricultural Training and Research Institute (KATRIN), St. Francis Hospital, and Ifakara Catholic parish. The KATRIN was started in September 1963 under the provision of an agreement between the two governments of Tanganyika and the Federal Republic of Germany. The institute has more than 1 800 ha of land of which 200 ha were lost due to the construction of TAZARA railway line in 1971. 214 ha are under cultivation by the institute of which 15 ha are irrigated.

KATRIN is mainly involved in agricultural research for crops grown in low lands of the tropics and is dealing with applied research work, training and extension in the field of agronomy, horticulture, soil and plant chemistry, plant protection and agricultural economics. Due to the country's economic problems of the 1980s KATRIN no longer fulfils some of its original objectives, like the training function. When it was fully operational, the institute also offered employment to Ifakara residents.

The famous St. Francis hospital which started as a dispensary in 1927 is currently being used by people from all over the country for medical treatment. 6.9% of Ifakara immigrant household heads surveyed, initially went to Ifakara for medical treatment at the hospital.

The Ifakara Catholic parish which started in 1911 is presently running a number of educational and other development projects like Ifakara trade school and Ifakara Social centre.

#### 5.1 Some Facilities Available at the Surveyed Villages

Table 2 presents some communication, health and educational facilities which are available in the five locations.

Whether Facility is Present or Not and Location

Mahutanga had the smallest number of these facilities with no communication and no health facilities in the village. The only one hospital and one day secondary school are in Ifakara town and are used by all the households in Ifakara division. Another national boarding agricultural secondary school is in Kibaoni and admits students from all over the country.

Table 2: Communication, Health and Educational Facilities Available in the Study Locations

	whether Facility is Present or Not and Location								
Type of Facility	Ifakara	Lumemo	K	ibaoni	Kikwawila				
A: Communication Ar	nd Information F	acilities ( x = pr	esent)						
Telephone	X			X	X				
Post Office	X								
Newspapers	X								
TV sets	X	X		X					
B: Health Facilities ( x Hospital	X								
Health centre	X	X		\					
Dispensary	X			X					
Clinic	X			X					
Maternity centre	X								
Family planning	X			X					
C: Educational Faciliti Kindergarten	ies ( Number of a	available facilitio	1	1	1				
Koranic school	4	1	0	1	2				
Primary school	8	1	1	3	4				
Secondary school	1	0	0	1					
Vocational school	3	0	0	0					
Adult education,	11	14	6	3	4				
Social welfare centre	1	,0	0	0					

#### 5.2 The Sampled Households

Table 3 presents the means and standard deviations of the ages and educational attainments of the household heads and the mean household size aggregated by gender.

The mean age of all the household heads was 43 years and the standard deviation was 11. The mean education was 5 years of schooling and the standard deviation was 3 years. The mean

household size was 6 residents and the standard deviation was 3 people. In the 1988 census the mean household size in Ifakara division was 6.1 persons. The 91 sampled female household heads had, on the average, less education, fewer residents in their households, and were a little bit younger than their male counterparts.

Table 3: Mean Age and Education of Household Heads and Mean Household Size

Village		Gender of the Household Head, Means, and S.Ds									
		Male			Female		All Sexes				
A: Age of the	A: Age of the Household Head										
	Mean	S.D	N	Mean	S.D	N	Mean	S.D	N		
Ifakara	40	10	58	37	7	22	39	9	80		
Lumemo	38	10	57	43	9	23	40	10	80		
Mahutanga	44	11	68	37	10	12	43	11	80		
Kihaoni	47	11	63	40	8	17	45	11	80		
Kikwawila	46	9	63	48	9	17	46	9.	80		
B: Education of	of the Hous	ehold Hea	d ( Years	completed	)	-		•			
[fakara	6	3	58	6	3	22	6	3	81		
Lumemo	6	3	57	4	3	23	5	3	80		
Mahutanea	6	3	68	6	3	12	6	3	80		
Kihaoni	6	3	63	4	3	17	5	3	80		
Kikwawila	5	3	63	3	4	17	5	3	80		
C: Number of	Residents i	n the Hou	sehold	•	•			•			
Ifakara	6	3	58	5	2	22	6	3	80		
Lumemo	6	3	57	5	3	23	6	3	80		
Mahutanga	6	3	68	3	2	12	6	3	80		
Kibaoni	7	3	63	4	2	17	6	2	80		
Kikwawila	8	4	63	6	3	17	7	4	80		
D: All Locatio	ns										
Age	43	11	309	41	9	91	43	10	400		
Education	6	3	309	5	3	91	5	3	400		
II 'size	7	3	309	5	2	91	6	3	400		

#### 6. THE FINDINGS

#### **6.1 Poverty Levels**

Table 4a presents the distribution of households according to Annual Household Expenditure Per Adult - Equivalent.

Table 4a: The Distribution of Households by Annual Expenditure (Tshs) Per Adult Equivalent

Expenditure Per Adult -		Number of Households and Location					
equiv.	Ifakara	Lumemo	Mahutanga	Kibaoni	Kikwawila		
60000-200000	17	26	35	jj	35	146	37
200001-400000	56	42	37	42	41	218	54
400001-600000	6	9	6	4	3	28	7
600001-810000	1	1	2	2	1	7	2
Mean	260,94 6	266,973	240,853	228,975	229,874	400	100
SD	94,408	129,899	120,488	91,061	91,073		

The minimum expenditure per adult - equivalent was Tshs 61,068. The maximum was Tshs. 806,604. The mean was Tshs. 245,524 (about US \$366) for all the households (about Tshs 673 an adult - equivalent a day), and the standard deviation was Tshs. 107,296. The mean expenditure for the rural households was Tshs. 241,669 and the standard deviation was Tshs. 110,080. The World Bank (1996a, p!4 of the appendices) obtained a mean annual expenditure per adult - equivalent of Tshs. 183,162 (about US \$298) for all households in Tanzania, Tshs. 146,297 for the rural households, and Tshs. 230,667 for the urban households. The overall mean for the five locations was higher thanthe overall mean for Tanzania in 1996. Kibaoni households had, on the average, the least expenditure, while Lumemo had the highest.

Assuming the World Bank's poverty line of \$1 an adult-equivalent a day (about Tshs 248.200 a year), the proportion of households falling below the line was 58% in Ifakara town, 59% in Lumemo, 66% in Mahutanga, 68% in Kibaoni, 63%, in Kikwawila, and 63% for all the households. From the values of the standard deviations, there were a lot of variations in household expenditure levels in each location.

Figure 1 shows the expenditure patterns of the richest, median, and poorest households. The three figures suggest that poor households are likely to spend a large proportion of their income on food for survival. They are also likely to spend very little on education, health and on fuel. They cannot afford to send their children to school or they use the children to generate additional income, and do without kerosene for lighting.

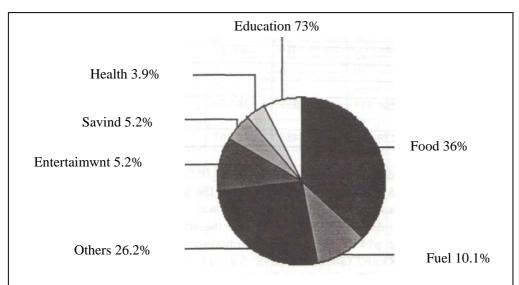
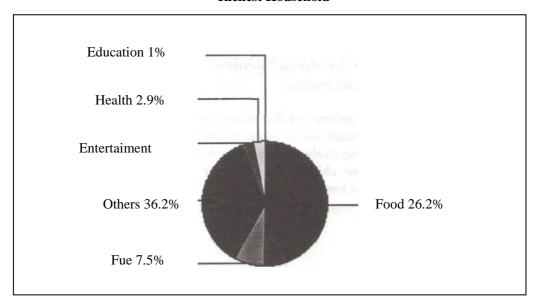
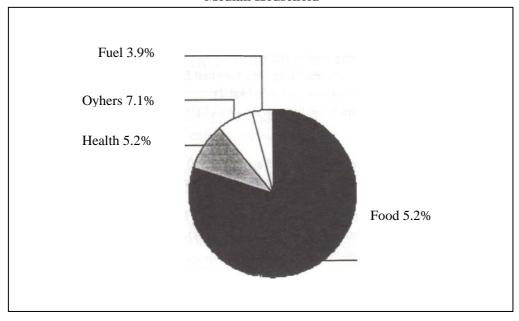


Figure 1: Expenditure Patterns of the Richest, Median, and Poorest Households

#### **Richest Household**



#### Median Household



**Poorest Household** 

#### 6.2 The Determinants of Household Poverty in Ifakara

Generally, the majority of households in the surveyed villages lived in poverty. Overall, 63% of the households were below the poverty line. What were the main determinants of poverty? A logistic regression model was fitted to the data in order to identify the variables that increase or decrease the probability that a household is poor in Ifakara. The dependent variable, POOR, had a value 1 if the household fell below the poverty line, and 0 otherwise. Three sets of independent variables were defined as follows: -

#### Human capital or demographic variables:

Number of children up to age 18 (ChildlS)

Number of male adults in the household (Nmadult)

Number of female adults in the household (Nfeadult)

Number of elderly people in the household (Nold)

Education of the household head (Educat = number of years of schooling)

Sum of education years of all household residents excluding school children (Sumeduc)

Age of the head of household (Age)

Whether or not the household head was female (Sexfeinal = 1 if the head is female)

Dependency ratio (Depratio)

#### **Physical Capital Variables:**

Area in acres of land cultivated by the household (qlO)

Number of valuable assets (land, shops, buildings etc.) owned by the household (q38c)

Whether or not the household lives in own house (q38a02)

Assessed quality of the house in which the household lives (q36b: 1 = poor, 3 = good)

#### Sources of Labour and income

Wage earnings (Wagelab: 1 if a member received any wages, 0 otherwise) Self-employment (Selfempl: 1 'if any member was self-employed; 0 otherwise)

Table 4b presents the results of fitting the model to the data. The goodness-of-fit statistics and the percentage of correct predictions (81% of the households) indicate that the specification is quite good. The main findings are as follows: -

(a) Among the human capital variables, household size, especially the number of adult residents in the household, increases the probability that a household becomes poor. In Ifakara, unlike in Bukoba (Kamuzora and Mkanda, 1999), a household shows more poverty the greater the number of members and children it has.

Whether large family size has positive or negative impact on poverty is still debatable. Among the advocated negative consequences of large family size on poverty are:

- It increases consumption and leads to low savings and low investment and, hence, poverty.
- !t produces high ratio of children who are pure consumers. This seems to be relevant to this study. While the dependency ratio for Morogoro was 97% in 1988, the ratio for the surveyed households was 145% (see Table 4b). The seasonal influence in the way most of the Ifakara residents work, and the absence of employment opportunities in the formal sector, are other factors. Most of the people work during the farming season only, during November to June, and remain idle after harvesting their crops.

On the other hand, large family size may have the following positive consequences:

• It increases availability of household labour, which is one of the factors of production.

Children, in this respect, are not only consumers, they also work.

 Large family size can stimulate demand, and, therefore, become a useful stimulus for investment

Table 4b: Determinants of Poverty in Jfakara - The Logistic Regression Results

	MEAN	β	
	Age of the head of the household	43	0.0129
	Number of children below 18 years	3.22	0.4197**
	Dependency ratio	1.45	-0.0262
Human capital	Education of household head (years)	5.17	-0.1587**
variables	Sum of education of h/hold residents (yrs)	18.77	-0.0070
	Number of adult females	1.55	0.6449*
	Number of adult males	1.28	0.6214*
	Number of elderly people in the household	0.14	-0.3278
	Whether household head is female:	0.23	-0.5222
	Acres of land cultivated by the household	2.72	.0.4457**
Physical capital	Whether household lives in own house:	0.42	-9.9813
variables	Number of valuable assets owned	1.72	-0.7205
	Assessed value of the house: 3=high	1.63	0.4157
Labour and source	Wage labour: 1 if any member receives	0.07	-1.2844*
of income	wages	0.11	-0.0079
-	Self-employed: 1 if a member is		
	employed		
	Constant		94228

<sup>\*</sup> Significant at the 5% level, \*\*Significant at the 1% level.

- (b) High education of the head of the household was a very important variable in reducing the household's likelihood of being poor. The head's education appeared to be more important than the sum of education years of all the household residents.
- (c) Area of the household's cultivated farm, and wage labour are other important variables in reducing the household's probability of being poor. The amount of land available to a household largely determines the extent to which it engages in farming, and to a lesser

extent the kind of fanning it undertakes. Households with small farms, but with little in (he way of savings, are likely to be risk minimizers rather than profit maximizers. As such, we would expect them to use their land for subsistence farming, and perhaps low risk commercial agriculture, such as selling surpluses of staple foods. Households with more land and sufficient funds to purchase necessary inputs can switch from subsistence farming to higher risk commercial production for the market. Instead of growing rice and maize only, they also grow higher value crops like cotton, fruits, vegetables, and coconuts.

#### **6.3** Sources of Household Income and Poverty

Tables 5a and 5b present the distribution of households by their sources of income and by location.

Table 5a: The Distribution of Households by Source of Income

Source Of Income		Numb	Total	Percent			
	Ifakar	Lumemo	Mahutanga	KJbaoni	Kikvvawila		
Farming	17	37	34	50	26	164	41.0
Farming +Business	19	14	7	2	6	48	12.0
Farming + Assistance	2	11	7	17	11	48	12.0
Farming + Salar	1	5	2	5	4	23	5.8
Farming +Livestock +Business	17	4	0	0	0	21	5.3
Farming + Fishing	4	1	10	0	4	19	4.8
Farming +Livestock	~i	2	4	1	9	18	4.5
Farming + Business + Assistance	5	3	1	0	4	13	3.3
Farming +Fishing + Business	2	1	4	0	0	7	.8
Farming +Salary +Assistance	0	0	1	2	4	7	.8
Farm + Salary + Business + Assist	0	0	1	0	5	6	.5
Farming +Livestock+ Assist	0	0	2	1	2	5	.0
Farming +Livestock+ Assistance	0	0	\	1	2	4	.0
Farm +Fishing+Livestock	3	0	0	0	1	4	1.0
Farm +Fish+Business+ Assist	0	0	3	0	0	3	0.8
Farm-Livestock+Salary+Assist	1	1	0	0	0	2	0.6
Farming +Salary+Business	1	0	1	0	0	j	0.5
Farming -Livestock+BusAssist	0	0	2	0	0	2	0.5
Farming +Livestock+Salary	0	0	0	0	1	1	0.3
Fishing	0	0	0	0	1	1	0.3
Business	0	0	0	1	0	1	0.3
Farming +Salary+ House rent	1	0	0	0	0	1	0.3
Total	80	80	80	80	80	400	100

Table 5b. The Distribution of Households by Main Source of Income

SOURCE	NUN	BER OF	TO'ITAL	PERCENT			
	Ifakara	Lumemo	Mahutanga	Kibaoni	Kikwawila		
Farming	29	50	47	69	48	243	61
Business	37	22	17	0	10	89	22
Salary	9	7	5	7	14	42	11
Fishing	5	1	11	1	8	26	6
Total							100

Table 5c: Mean, Minimum and Maximum Farm Size in Each Location

Location	Mean acreage	Minimum acreage	Maximum acreage
Ifakara Town	2.48	0	8
Lumemo	2.41	1	7
Mahutanga	2.27	1	6
Kibaoni	2.86	1	12
Kikwawila	3.58	1	12
Total	2.72	0	12

More than 99 percent of the households depended on either farming only or farming and other activities tike business, keeping livestock etc. as sources of household income. 41 percent of the households reported farming as the only source of income. It is interesting to note that all the 42 households whose one of their sources of income was salary, did some other activity to supplement their incomes a typical phenomena for most Tanzanians. Table 5c presents more data on the size of farms cultivated by the households in each location

#### 6.3.1. Farming Only Households are More Vulnerable to Poverty

Tables 4a and 5a suggest that villages whose households depended on farming only (like Kibaoni) had lower mean expenditures per adult-equivalent than those who diversified their sources of income. This seems to confirm the first research hypothesis. A non-parametric Mann-Whitney-U-test was conducted to verify the hypothesis. The households were categorised into two groups - the first consisting of those whose source of income was farming only, and the other households formed the second group. The mean expenditure per adult-equivalent was Tshs. 229,828 for the farming only households, and Tshs. 262,872 for the others.

In the Mann-Whitney-U-test the observations (household expenditures per adult-equivalent) from both groups are first combined and ranked from the smallest to the largest value. The

statistic for testing the hypothesis is the sum of the ranks for each or the two groups. If the groups have the same distribution, their sample distributions of ranks should be similar. If one of the groups has more than its share of small or large ranks, there is reason to-suspect that the two underlying distributions are different. The test can be summarised as follows:

#### Null Hypothesis. Ho:

The distribution of annual household expenditures per adultequivalent among farming only households and the other households come from populations with the same distribution.

#### Alternative Hypothesis,

Annual household expenditures per adult-equivalent for farming only households are lower than those for the other group (i.e. a left-tail test).

Since the sample sizes are large, the test statistic,  $z \sim N(0, 1)$ . For the left tail test, and at the 5% level of significance, the critical z-value is -1.645. But the observed z- value was -2.0813. Hence the null hypothesis is rejected at the 5% level of significance. It appears farming only households' expenditures are lower than those for the other group. The test is described in detail in Mendenhall and Reinmuth (1978:666). Unlike the parametric *t*-test, *U*-test does not require that the expenditures to be normally distributed.

The farming only households did not only have lower expenditures but also smaller farms than the other group. The mean farm size per household was 2.62 acres for the farming only households and 2.83 acres for the others. Farming only households had lower expenditures because they couldn't afford to cultivate bigger farms that could bring them higher incomes.

But why do some households diversify their sources of income and others don't? Evans and Pirzada (1995:65) argue as follows:

"The household as a production unit has resources of land, labour, and capital, which it allocates according to objectives. Depending on the income level of the household, the objective to be maximised may be merely surviving, minimising risks, or maximising profits. All three goals can be enhanced through diversifying household's sources of income. When households are able to diversify their income, they are better able to accept risk in any one of their ventures. A higher risk threshold enables households to take actions, such as investing greater resources or adopting innovations, that improve their productivity as farmers or entrepreneurs. This, in

turn, raises output and incomes, spurs demand, and creates further business and employment opportunities."

# 6.3.2 Resource Inflows from Relatives and Kin Living in Towns Form a Significant Source of Income to the Rural Households

Out of the 320 rural households, 89 (28%) received remittances from 227 relatives and kin who were not living with them at the time of the survey. The remitted items included money, clothes, foodstuffs, sugar, and other minor presents. The remittances were mainly from children working away from home in both rural and urban areas. At the rural-urban interface, 6% of the remittances to the rural households came from Ifakara town, while 1% only of the remittances to Ifakara town came from households in the four rural villages. Forty-five percent of the remitters lived in Kilombero and Ulanga districts, 26% were in Dar es salaam, 10% lived in other areas of Morogoro region, and 19% lived in Iringa, Mbeya, Lindi, Mtwara, Songea, Ngara, Singida, Mwanza. Tanga, Moshi, Arusha, Kagera, Tabora, Dodoma, and Malawi. All the 89 households made no savings.

The estimated value of the remittances to the households ranged from 5000/- to 350,0007- The mean was 53,146/07 per household, and the standard deviation was 63,859/67. To test the second hypothesis, the expenditure distributions of the 89 households that received remittances were investigated: (a) when they included the remittances and (b) when the remittances were excluded. Mean annual expenditure per adult-equivalent for the households was Tshs 218,118/23 with the remittances and Tshs. 206,346/06 without the remittances. The proportion of households falling below the poverty line was 68.5% with the remittances and 71.9% without them.

A Wilcoxon-Matched-Pairs-Signed-Ranks test was conducted in order to find out whether or not the differences in the mean values of annual expenditures per adult-equivalent were significant. Statistically we were testing the null hypothesis that the two means are equal against the alternative that they were not equal. The results were as follows:

#### Mean Rank = 45.00; Cases = 89; Observedz-value = -8.1929; Two-TailedP = 0.0000.

The results were significant at the 0.0001% level implying that the two distributions were different. The remittances made the distribution of annual expenditures per adult-equivalent for the 89 households change from the one with a mean of Tshs 206,346/06 and standard deviation of Tshs. 79,286/11 to the one with a mean of Tshs 218,118/23 and standard deviation of Tshs. 81,502/48. In the process the percentage of these households falling below the poverty line was reduced from 71.9% to 68.5%. The remittances had a significant impact on the expenditure distributions of the households. In conclusion we can note that (a) a good proportion of the rural households (28% of them) received remittances from relatives and kin who were not living with

them with 72% of the remitters living in the urban areas, (b) the remittances had a significant impact on the expenditure patterns of these households.

# 6.3.3 Rural Households Which Use Urban Opportunities and Assets to Diversify Income Sources are More Successful

Out of the 320 rural households, 88 used the town milling machines and 207 used the town market in their attempts to diversify their sources of income. In order to test the third hypothesis, the rural households were grouped into those that used the two facilities and those which did not use them. Mean Annual household expenditure per adult-equivalent for each of the two groups were calculated and compared. The results are presented in table 6.

In each case, rural households that used the two facilities had higher mean expenditures than those which didn't use them. The households that used the milling machines (in addition to farming), had a mean expenditure of Tshs. 28,571/- higher than those which did not use these facilities. The households that used the town market had a mean expenditure of Tshs. 5,002/-higher. The Mann-Whitney-U-test showed that differences in expenditures per adult-equivalent between households that used the milling machines and those which did not use them were significant at the 0.1% level, while the differences in expenditures for those households which used the town market and those which did not use it were significant at the 19% level. The people who used the milling machines were mainly in the wholesale business, and made more money, compared to those who used the town market.

Table 6: Mean Annual Expenditure Per Adult-Equivalent for Some Rural Households

NAME OF FACILITY	HOUSEHOLDS THAT USED/DID NOT USE	NUMBER OF CASES	MEAN EXPENDITURE
Milling Machines	Used the Facility Didn't Use the Facility All households	88 232 320	262,383 233,812 241,669
Ifakara Market	Used the Facility Didn't Use the Facility All Households	207 113 320	243,435 238,433 241,669

Table 7a: The Distribution of Households According to Some Social Indicators of Poverty

Variable and Value Number of Households and Location							Percent
Label	Ifakara	I.umemo	Mahutanga	Kibaoni	Kikwawila		
A: Main Source of Drinking Wa	nter		C				
Well/borehole	53	49	72	64	12	250	62.50
Tap elsewhere	25	24	8	14	62	138	34.50
Tap in the plot	0	0	0	1	4	5	1.25
Others	2	2	0	1	2	7	1.75
Total	80	80	80	80	80	400	100
B: Type of Toilet Used							
Pit latrine in dwelling	57	79	64	78	72	350	87.50
Common pit latrine	19	0	16	0	1	36	9.00
Flush/bucket latrine	4	1	0	2	3	10	2.50
None	0	0	0	0	4	4	1.00
Total	80	80	80	80	80	400	100
C: Main Type of Fuel Used							
Firewood	41	56	75	62	68	302	75.50
Charcoal	37	23	5	18	9	92	23.00
Electricity/Kerosene	2	1	0	0	3	6	1.50
Total	80	80	80	80	80	400	100
D: Number of Meals a Day							
1	1	0	3	0	0	4	1.00
2	13	12	10	20	32	87	21.75
3	66	68	67	60	48	309	77.25
Total	80	80	80	80	80	400	100
E: Average Number of Persons	per Sleepii	ng Room					
3 or less	64	59	56	61	53	293	73.25
3.001-5	14	21	21	16	23	95	23.75
5.001-7	2	0	3	3	4	12	3.00
F: Number of Valuable Assets (	)wned						
0	3	0	1	8	1	13	3.25
1	73	34	50	55	78	290	72.50
2	4	42	22	13	1	82	20.50
3 or more	0	4	7	4	0	15	3.75

# **6.4** Social Indicators of Poverty

Poverty is a multidimensional concept. It means different things to different people (Novak, 1996; Liviga and Mekacha, 1998). In Dodoma region being poor means "living by begging, being childless, having no home, etc.". (Narayan, 1997:10). In Kilimanjaro region, it means "having no or little land, living in a house with broken walls, depending on relatives, etc.". Table 7a presents the distribution of households according to some social indicators of poverty.

Table 7b: The Distribution of Households According to Some Indicators of Poverty and Poverty Status

VARIABLE AND VALUE	NON-	POOR	POO	R	TOTA	AL.
	Number	Percent	Number	Percent	Number	Percent
A: Main Source of Drinking Wa	ater					
Well/borehole	100	66	150	60	250	62
Tap elsewhere	44	30	94	38	138	35
Tap in the plot	3	2	2	1	5	1
Others	3	2	4	1	7	2
B: Type of Toilet Used						
Pit latrine in dwelling	129	89.6	221	90.2	350	87.5
Common pit latrine	14	9.7	22	9.0	36	9.0
Bucket latrine	6	4.0	2	0.8	8	2.0
None	0	0.0	4	1.6	4	1.0
Flush Toilet in dwelling	1	0.6	1	0.4	2	0.5
C: Main Type of Fuel Used						
Firewood	97	64.7	205	82.0	302	75.5
Charcoal	48	32.0	44	17.6	92	23.0
Electricity/Kerosene	5	3.3	1	0.4	6	1.5
D: How the Fuel is Obtained						
Bought	95	63.3	124	49.6	219	54.8
Gathered	55	36.7	126	50.4	181	42.2
E: Other Variables						
Mean No. of Meals a day	2.81		2.29		2.49	
Mean Residents/bedroom	2.20		2.95		2.65	
Mean Education of Head	6.01		4.66		5.17	
Valuable Assets Owned	2.11		1.49		1.72	

Nearly all the households drank clean water, used pit latrines, used charcoal and firewood for cooking, had two or three meals a day, and owned one or two valuable assets. The average number of persons per sleeping room was 2.4 in Ifakara, 2.5 in Lumemo, 2.8 in Mahutanga, 2.6 in Kibaoni, and 2.8 in Kikwawila. Fifty percent of the household heads believed that their dwelling units were satisfactory or better. There were no significant differences in the values of these social indicators between Ifakara households and those in the surrounding rural villages.

Table 7b shows the distribution of households according to some social indicators of poverty and the household's poverty status. Since most of the villages in Ifakara possess community wells or community water taps, nearly all households, poor or non-poor, had access to clean water. Similarly, with regard to the type of toilet used, nearly all households used pit latrines.

The majority of the poor households used firewood, which they gathered from the nearby woodlands for cooking. A good number of the non-poor (35%) used charcoal or electricity for cooking. While the poor households took an average of 2.3 meals a day, the non-poor had about 2.8 meals. The average number of residents per bedroom was 2.95 for the poor and 2.20 for the non-poor. The poor families lived in rooms which were more crowded than the non-poor

The mean education of the household head was lower for the poor households than for the non-poor. Similarly, poor households owned fewer valuable assets compared to the non-poor. The Mann-Whitney-U-test showed that the differences in the mean values for the group E variables of Table 7b, between the poor and the non-poor, were statistically significant at the 1% level implying that, in Ifakara, household poverty is mainly reflected in the small number of meals taken in a day, large number of household residents per sleeping room, low education of the household head, and the small number of valuable assets owned. The most common valuable assets possessed by the households were their simple dwelling units and a farm.

# **6.5 Community Investments**

Each of the villages had a number of communal projects and activities. They included building schools, clinics, dispensaries, toilets, and modern water wells. We can distinguish between those projects whereby the villagers contribute money and those whereby the villagers contribute their labour. But for most of the projects the villagers had some assistance, mainly financial, from such donors like Plan International, FAO, DHV (a Dutch volunteer organisation), IRISHAID, The Swiss government, HABITAT, UNICEF, TEHIP, AMMP, JICA, UDP, the central government, some religious organisations, the Kilombero District Council; and the member of parliament for Kilombero constituency - the Honourable Abbas Gulamali. It is difficult to collect accurate data on the value of these projects since most of the villages do not keep statistics on them, but from our interviews with the respective village officials, the distribution of these projects in the study villages during 1999 were as presented in Table 7c:

Table 7c: The Distribution of Communal Projects by Village

<b>Project Description</b>	Ifakara		Lui	nemo	Mah	utanga	K	Kibaoni		Kikwawila	
	N	Value (shs.)	N	Val ue	N	Value (Shs.)	N	Value (Shs.)	N	Val ue	
Buying and making desks	535	10.7 m	55	1.lm	118	2.36 m	55	1.1m	-	-	
Building classrooms/maintenanc	10	19.6 m	~	10.0m	~	17.5 m	~	33.3m	~	4.0m	
Building teachers' houses	2	10.0 m	1	5.0m	-	-					
Building/maintaining wells	13	19.5 m	7	10.5	j	4.5m	7	10.5m	-	-	
Building community water taps			3	5.1m	4	6.8m					
Building health centres etc.	j	175m	1	38m	-	-	1	85.8m	-	-	
Grain grinding machine	-	-	1	0.4m	-	-	-	-	-	-	
Building school toilets	-	1.5m	~	~	~	0.5m	~	1.5	~	1.0m	

It can be observed that the villagers, with the assistance of the donors, the District Council, and the central government, had invested heavily in these communal projects. Consequently, the majority of the households, poor or non-poor, had reasonable access to clean drinking water, schools, and good health-care services.

#### 7 SURVIVAL AND ACCUMULATION STRATEGIES

As stated earlier survival strategies are the activities of poor people in times of stress, which they see as crucial for the continued running of their households. Seplaki (1991) defines accumulation as profits added to the capital base instead of paid out as dividends. Thus accumulation implies making some surplus that can be added to the capital base, and it is the successful non-poor who can accumulate. Strictly speaking "surviving" and accumulating" are two different concepts. But the strategies adopted by 'survivors' and by 'accumulators' are sometimes the same, especially as far as the surplus making aspect of accumulation is concerned. But they differ in scale and in the quality and type of tools used. While, for example, the poor in Ifakara resort to fishing when faced with food shortages, the non-poor use

modern fishing gear and fishing boats to enrich them through fishing. The same can be said about farming. The non-poor use modern farming implements and farm inputs and cultivate large farms to enrich them, while the poor cultivate small farms using a simple hoe in order to survive. Most of the accumulators adopt many strategies at the same time they diversify their sources of income.

The fact that survivors and accumulators do sometimes use the same strategies is also reflected in some of the literature reviewed in this report especially in sections 2.2 and 2.3. Some of the writers include some accumulation strategies when writing about survival strategies. While Foeken and Mwangi (1998:19) and Holm (1992) consider non-farm strategies as survival strategies, Pincus (1996) considers them as accumulation strategies. In fact most people adopt non-farm and off-farm strategies like doing big businesses and salaried employment, to increase their wealth. There are also the poor hawkers and the poor messengers who adopt the same strategies to survive. Most of the strategies described below can be considered as being both survival as well as accumulation strategies even though the two concepts are different.

### 7.1 Strategies Adopted by Ifakara Households in Exploiting Rural Resources

Out of the 400 surveyed households 250 (46 of them in Ifakara) were below the poverty line and could be considered as being poor. The remaining 150 households were not poor. The main survival and accumulation strategies adopted by Ifakara households in exploiting rural resources included obtaining cheap supplies from the rural farms, selling goods in the rural villages, securing employment in the rural farms, and retiring to the rural households.

#### 7.1.1 Rural Farms as a Source of Supplies to the Town Households

86.3% of the households in Ifakara town had farms outside the town. About 99% of these had their farms in the surrounding rural villages. The remaining 1% cultivated their farms in the villages of their origin, mainly in Kilombero and Ulanga districts. The average number of acres cultivated per household was 2.48 in Ifakara, 2.41 in Lumemo, 2.27 in Mahutanga, 2.86 in Kibaoni, and 3.58 in Kikwawila. Farmers from Ifakara town households had on the average, bigger farms than those from Lumemo or Mahutanga rural villages.

The town households need supplies from the rural farms. This is necessitated by the ever-increasing cost of living in the town where provisions are relatively expensive. Food supplies (mainly maize, rice, vegetables and fruits) obtained from the town households' rural farms are about 30% cheaper than those from the town market. Even if a household does not have a rural farm, it is still cheaper buying supplies from the rural farms than the town market.

The rural areas are also sources of several other provisions like fish, firewood, and sand. About 98% of the Ifakara households use charcoal or firewood for cooking. Electricity and kerosene are too expensive for them. Fish from the Kilombero and Lumemo rivers, constitute the

cheapest source of fat and protein to Ifakara households. When the supply is plentiful, a 2 kg. fish, for example, may cost only 200/- (two hundred shillings).

For the Ifakara town households, having a farm in the rural areas is a survival as well as an accumulation strategy. The average area of a cultivated farm was 2.68 acres for the poor households and 2.80 acres for the non-poor.

46% of the poor immigrant Ifakara households maintained links with their rural homes and visited them about two times a year. 5.9 percent of the households had other households in the rural areas which produced food for consumption by both households. The extra was sold in order to get money for other necessities.

#### 7.1.2 Rural Households as a Market for the Town Traders

Increasing competition in town has necessitated enterprising town-based petty-traders and hawkers to find alternative markets in the rural areas. The traders sell such items like used clothes, *khangas*, and beauty products. The goods are sold at relatively higher prices in the rural villages compared to their prices in town, probably because of transport costs. Some of the hawkers sell their goods on credit, a thing that attracts many rural buyers.

Besides the petty traders, there are also town-based transporters who ferry rural people and goods to and from Ifakara town. There are those who operate within Ifakara division and those who go beyond Ifakara to places like Mahenge, Chita and Malinyi; about 100 kms away. The major means of transport to these places are lorries or pick-ups (popularly known as *Madungu*). A *dungu* is a lorry or a pick-up which is used to ferry both people and goods from Ifakara town to other places in Ulanga and Kilombero districts. There are more than 15 such motor vehicles operating in Ifakara.

A typical *dungu* would carry about 40 people and their luggage, 20 bags of rice, 5 bags of sugar, 10 bags of cement, 15 sheets of roofing iron, 200 litres of kerosene or diesel in ten 20-litre plastic containers or jerry-cans, 20 crates of beer or soda, 2 bicycles and 2 mattresses. Owners have no fixed departure times but move when fully-loaded and there is no sitting in the *dungu* because a seated person occupies more space than a standing one, and the operators are interested in carrying as many people as possible to maximise their profits.

The passenger lorries from Malinyi have also designed their own timetables and queue for passengers forcing the lorries to travel at odd hours. This creates inconvenience and is risky to villages such as Mwembeni, Majiji, Kiswago, and Mtimbira, which are in bushy areas with dangerous wild animals. There are incidences whereby passengers are attacked by lions while others such as in Malinyi, having no watches, sleep in the lorries to ensure that they board the lorries to Ifakara.

The passenger lorries charge exorbitant fares. For example, for a 20 kms stretch, the lorries charge 1500/- while the buses charge 1000/-. People travel in these lorries not because they are poor and can't afford travelling in buses, but because of the absence of alternative, reliable, and better means of transport. Tickets are not issued, and the conductors, most of who are not the owners of these motor vehicles, are highly motivated and market their services very aggressively. Wealthy transporters have, for many years, been reluctant to send buses to these places because the roads are bad, and their substitutes, the passenger-lorries, have been doing a very lucrative business.

Most of these roads are in the Kilombero valley and during the rainy season, get damaged very badly, and some sections get washed away by floods. There are attempts to repair them but do not hold for long. The transportation most suitable to withstand such bad roads are thus lorries and pick-ups (compared to the buses). The lorries have another advantage too. During harvest time, they are also used to transport rice and other products to such places like Dar es Salaam, Zanzibar, and Pemba.

Although the lorries dominate these routes, there are a few buses, mostly old ones, which also go to these places during the dry season, but they face very stiff competition from the lorries.

### 7.1.3 Rural Farms as Places of Employment

The KATRIN has 214 ha under cultivation, and a number of employees work in these rural farms. About 5% of these employees live in Ifakara town.

# 7.1.4 Rural Areas as Retirement Places for the Town Employees

Out of the 36-employed immigrant household heads, only two expressed their intentions to retire to their rural villages of origin. For them the town was only a place for accumulating wealth to be used in their rural homes after retirement. They adopted an urban strategy. It appears that the practice of urban employees to retire to their rural homes of origin is fading away in Tanzania, and most urban employees remain in town even after retirement.

# 7.2 Strategies Adopted by Rural Households in Exploiting Urban Facilities

Most of the rural households, especially the non-poor, used Ifakara urban services in their survival and accumulation strategies. The strategies included securing supplies from the town, and making use of Ifakara town market, the grain milling machines, Ifakara day secondary school, St Francis hospital, the shops, entertainment centres, and the post office.

7.2.1 Ifakara Town as a Source of Supplies and Services to the Rural Households Table 8 presents an inventory of urban economic activities carried out in the five locations:

Fable 8: An Inventory of Urban economic activities

Type of Activity		Number o	f Establishn	nents and	Location	Total
	Ifakara	Lumemo	Mahutanga	Kibaoni	Kikwawila	
Reiail shops/kiosks	60	5	2	15	29	111
Grain mills	34	4	0	5	4	47
Tailors	30	•^	0	6	2	41
Guest houses/hotels	23	0	0	3	0	26
Potters	5	5	4	6	5	25
Bars selling local	0	2	7	7	4	20
Shoe shiners	10	0	0	0	10	20
Carpentry workshops	8	0	0	6	3	17
Wholesale shops	16	0	0	0	0	16
Butchers	10	4	0	1	0	15
Bars selling beer	12	0	0	2	0	14
Vehicle repair garages	6	0	2	3	0	11
Restaurants/snac	10	0	0	0	0	10
k bars/cafes						
Pharmacies	8	1	0	1	0	10
Bicycle repairers	4	0	0	0	3	7
Radio/watch repairers	3	1	0	2	0	6
Petrol	2	0	0	0	0	2
stations/Fuel shops						
Bakeries	0	0	0	0	0	0
Total	241	25	15	57	60	398

Two things can be observed from Table 8: (a) while each of the rural villages had a number of retail shops, it was only Ifakara town which had the wholesale shops. The rural retail shops, groceries, and bars got most of their merchandise from the town. The same applies to the petrol stations. Besides the retail shops, the majority of the rural residents do their shopping in Ifakara town where a variety of consumer goods are available and are sold at relatively cheaper prices. (b) A number of the rural households are also involved in non-farm production like running retail shops, bars, etc.

Four Ifakara town facilities were used by some of the rural households: The town market, the grain milling machines, the day secondary school, and St. Francis hospital. Table 9 presents the mean frequencies with which the rural households used the town facilities in a month:

Although some of these facilities, like the grain mills and dispensaries, are available in some of the rural villages, communication problems compel the households to prefer the town facilities

Table 9: Mean Frequency: A Household in Each Rural Location Used a Town Facility in a Month

Facility	Mean	Mean Frequency of use/household/month						
	Lumemo	Mahutanga	Kibaoni	Kikwawila				
Milling services	4.10	1.64	1.90	3.58	2.71			
Ifakara market	18.93	15.00	15.04	5.21	13.01			
Ifakara hospital	3.16	3.24	2.73	3.59	3.16			
Day secondary school	23.11	6.29	15.93	20.00	17.67			

#### 7.2.2 The Town as a Market for the Rural Households

Some of the rural households used Ifakara town market to sell produce from their rural farms. The town also attracted a number of traders and middlemen from outside the district who went there to buy crops from the rural households at very cheap prices and sent them to other parts of the country where they are sold at exorbitant prices.

### 7.2.3 The Town as a Workplace for the Rural Households

The rural poor, sometimes, migrated or commuted daily to the town to sell their labour. Some of them managed to find lowly paid jobs like being a barmaid, a security guard, a house-girl, a houseboy, or a labourer in a construction company. These people were usually paid less than the minimum wage. Others, who had skills, employed themselves as carpenters or motor vehicle mechanics, and a few of them assisted competing bus *and passenger-lorry* operators in marketing their services. Being employed in town was a survival strategy for the rural poor, and an accumulation strategy for the non-poor.

# 7.3 Strategies Adopted by Both Rural and Urban Households

Respondents were asked what their households did when faced with either acute food shortages or serious economic hardships. Table 10 shows the distribution of the 250 poor households according to the reported survival strategies.

The most commonly used strategies were changing the type of diet taken and reducing the number of meals a day (87% of the households), doing piecework (82%), and doing petty businesses (56%). 12% of the households resorted to selling chicken.

There were also other survival strategies, not observed by Narayan (op. cit.). These are fishing (5% of the households), brewing and selling local liquor (1%) and selling coconut wine (2%).

Households who resorted co these strategies were often better off than those who resorted to piecework only. To clarify further on these strategies, Box 1 describes how the poorest household, Mr. Matern Kapakalafumbi's household survived when faced with hardships, and Box 2 describes how the richest household Mr. Mtwa Ngwavi's household accumulated wealth.

# Box 1: Survival Strategies Adopted by Mr. Kapakalafumbi

Kapakalafumbi is a man of 38 years. He was married and had three sons and three daughters. The oldest child was 15 years and the youngest was six months old. He was born at Malinyi, got married there and moved to Kibaoni about 20 years ago to look for employment (which he didn't get). His education was standard seven, he had no training, and the work he and his wife did was farming. His household's annual expenditure per adult-equivalent was Tshs. 61,068. He cultivated 1 acre of rice and harvested 4 bags only in 1998. For a family of 8 four bags were not enough. All the rice was consumed, and he still had to do piecework to complement his income. When food was very scarce he relied on wild-foodstuffs like eating fruits of an aquatic plant known as *unanga*. The fruit tastes like millet when cooked and is usually eaten by wild birds. During such periods Mr. Kapakalafumbi's household eats only once a day, and seeks temporary work in the farms of the well-to-do households. His main and only source of fuel is firewood collected from the nearby woodlands. The wife tried gleaning from the harvested farms to increase their food reserves, and made local carpets, and pots for sale in Ifakara town.

#### Box 2: Accumulation Strategies Adopted by Mr. Ngwavi

Mr. Ngwavi was born in Tunduru and moved to Ifakara town 33 years ago to join his parents. He was 55 years old and married. He lived with two other relatives. His education was standard 10 and had some training. His accumulation strategies consisted of a combination of doing business, farming, and keeping livestock in the rural suburbs of the town. He was running a wholesale shop and he bought and sold rice at wholesale prices. He cultivated 13 acres in which more than 10 different types of crops were grown, and he reared 6 cattle, 23 goats and 73 chicken. His annual expenditure per adult equivalent was Tshs 806.604.

Table 10: The Distribution of Poor Households According to the Type of Survival Strategy and Location

Strategy		Fre	equency and Loc	cation		Total	Percent
	Ifakara	Lumemo	Mahutanga	Kibaoni	Kikwawila		
Piece work+Changing diet+Business	16	13	21	18	20	88	35.2
Doing piece work+Changing diet	14	11	12	25	14	76	30.4
Changing diet +Doing petty business	5	2	3	5	2	17	6.8
Piece work+Changing diet+Livestock	1	6	0	0	7	14	5.6
Change diet+Business+Selling livestock	3	4	3	0	0	10	4.0
Piece work+Fishing+Doing business	0	1	8	0	!	10	4.0
Piece work+Sell coconut wine ( <i>Tembo</i> )	0	2	4	0	0	6	2.4
Piece Work+Doing petty business	1	3	0	1	0	5	2.0
Changing diet/reducing number of meals	0	1	0	2	1	4	1.6
Changing diet+Selling livestock	0	0	0	1	2	3	1.2
Doing piece work alone	1	0	1	0	0	2	0.8
Doing Petty business	1	0	0	1	0	2	0.8
Selling livestock+Doing petty business	1	0	0	0	1	2	0.8
Changing diet+Seeking credit+Business	2	0	0	0	0	2	0.8
Piece work+Selling livestock+Business	0	2	0	0	0	2	0.8
Piece Work+Changing diet+Credit.	1	1	0	0	0	2	0.8
Fishing + Doing petty business	0	0	1	0	1	2	0.8
Brewing and selling local liquor	0	1	0	1	0	2	0.8
Changing diet +Asking for assistance	0	0	0	0	1	1	0.4
TOTAL	46	47	53	54	50	250	100

### 7.4 Associational Activity

Another strategy that households adopted was forming clubs, mainly religious and burial clubs, u;iose members co-operated in times of hardships; forming co-operative societies like credit and savings societies that offered credit to its members; and forming rotating credit associations in which all members invested money all the time but each received credit in rotation. The household heads were asked if they or their wives belonged to any groups, such as savings, welfare, income generation, church- or mosque-related, or of a funeral club. About 10 such groups were identified as follows:

- (a) Christian religious clubs whose aims were mainly praying and spreading Christian religion and helping club members when they were bereaved. 17 household heads in Ifakara, 11 in Lumemo, 39 in Mahutanga, 14 in Kibaoni, and 8 in Kikwawila belonged to such clubs. In all 89 household heads or 22.25% were members of such groups.
- (b) Moslem religious clubs whose aims were similar to the Christian groups. 12 households or 3% were members of such clubs.
- (c) Savings and credit societies all Kilombero district employees, about 940 of them were members of a savings and credit society. There was another savings and credit society for all district headquarters' employees only.
- (d) Burial clubs all teachers in Ifakara division, about 310 of them, were members of a burial club. There were other burial clubs for households that had no teachers. 13 household heads (3.25%) were members of such clubs.
- (e) Rotating credit associations (*KUPEANA*) 8 household heads were members of such
- (f) associations. These associations were very popular among young single women.

### 7.5 The Migrants to Ifakara

Migration is an important factor in the development process since migrants transfer their labour from their place of origin to the place of destination. 56.5% of the surveyed household heads were immigrants. The percentage of immigrant households in the five locations was 46.25% in Ifakara town, 52.5% in Lumemo, 28.75% in Mahutanga, 85% in Kibaoni, and 70% in Kikwawila. The vast majority (67.7%) came from the two districts of Ulanga and Kilombero which were formally one district, and whose people have the same cultures and ethnicity. Both districts are occupied by many ethnic groups. The 400 household heads belonged to 39 different tribes as follows: 25.25% (Ndambas), 19% (Pogoros), 13% (Ngonis), 9.5% (Ndwewes), 7.5% (Ngindos) and 7% (Mbungas). 4.87% of the immigrant household heads came from within

Morogoro region but outside Ulanga and Kilombero districts, and the remaining 27.43% came from outside Morogoro region.

Some of the reasons for migration are (Aina, 19p48):

- (a) Catastrophes such as wars, droughts, and floods.
- (b) Unequal development i.e. spatial inequality of economic development and incomes.
- (c) High population pressures.
- (d) Low agricultural productivity.
- (e) Poverty and hunger in certain specific areas.
- (f) The attraction of towns as centres of education, higher incomes and social amenities, and importance of ethnic flows, assisted by voluntary associations in towns and cities.

Table 11 gives more statistics on the Ifakara immigrants including the reasons for migrating to Ifakara. where they stayed on arrival, and the type of work they did.

The totals in the table differ because of missing values. 33.5% of the immigrants moved to Ifakara with their parents when they were still young. The fertile Ifakara land attracted more than 30% of the migrants, and doing business attracted more than 20%. Ifakara hospital did also attract 7% of the immigrants who initially went to Ifakara for medical treatment but decided later to stay.

61.8% of the migrants had no skills, 25% had formal skills and 13.3% had some informal skills. 82% of the migrants did subsistence farming, and 83% stayed with their relatives on their arrival. At the time of the survey, the youngest migrant was 22 years and the oldest was 70 years. The mean age of the 226 migrant household heads was 44.1 years and the standard deviation was 10.54 years.

As far as poverty is concerned, the immigrants of Ifakara were slightly better-off than the non-immigrants. The proportion of poor households was 61% for the immigrants and 65% for the others. Mean annual expenditure per adult - equivalent was Shs. 246,057 for the immigrants and Tshs. 244,832 for the others. Since most of them migrated to Ifakara with the objectives of either doing business, farming or being employed hence leading a better life, they worked in activities which paid better thus being little bit better-off.

Table 11: The Distribution of Migrant Households by Reasons for Migrating, Where They Stayed on Arrival, the Type of Training They had, and the Type of Work They Did

Variable And Value Labels			Location			Total	Percent
	Ifakara	Lumemo	Mahutanga	Kibaoni	Kikwawila		
A: Reasons for Migrating	g to Ifakara						
Join/with parents	11	13	7	18	24	73	33.5
Farming+Business	2	11	7	23	2	45	20.6
Official transfer	6	7	2	12	9	36	16:5
To do farming	7	3	1	1	14	26	11.9
Medical treatment	2	2	4	6	1	15	6.9
Look for employment	5	2	0	5	0	12	5.5
Join husband	1	1	1	0	1	4	1.8
To do business	2	0	0	1	0	3	1.4
Retire home	1.	0	0	0	Ī	2	0.9
To fish	0	0	1	0	0	1	0.5
Near birth place	0	Ī	0	0	0	1	0.5
Total	37	40	23	66	52	218	100
B: Where S/he Stayed or	Arrival						
With relatives	27	33	22	58	41	181	83.0
With friends	1	1	1	3	11	17	7.8
Rented a house	8	3	0	2	0	13	6.0
Government quarter	0	2	0	3	0	5	2.3
Own house	1	1	0	0	0	2	0.9
Total	37	40	23	66	52	210	100
C: Type of Training S/h	e Had						
None	22	26	18	40	33	139	61.8
Formal Skills	11	13	3	13	16	56	24.9
Informal Skills	4	3	2	15	6	30	13.3
Total	37	42	23	68	55	225	100
D: Type of Work S/he D	id						
Subsistence Farming	29	29	21	59	47	185	81.9
Formal Sector	4	8	2	4	7	25	11.1
Informal sector	1	1	0	5	2	9	4.0
Retired	3	4	0	0	0	7	3.1
Total	37	42	23	68	56	226	100

# 7.6 Problems Faced by the Households and the Villages

A number of problems facing the surveyed households and the villages were identified. Table 12 presents the distribution of households by the identified problems. The row percentages are out of 398 - the number of households which responded to the question.

**Table 12: Problems Facing the Households** 

Problem	Number of Households and Location						Percent
	Ifakara	Lumemo	Mahutanga	Kibaoni	Kikwawila		
Insufficient incomes	73	76	78	78	80	385	96.7
Cost of education	42	56	23	79	60	260	65.3
No good schools	54	50	46	59	44	253	63.6
Drought	35	37	31	46	58	207	52.0
Unemployment	36	24	41	55	44	200	50.3
Transport	25	30	16	64	41	176	44.2
Water shortages	31	13	32	23	28	127	31.9
Lack of jobs	14	18	20	17	20	89	22.4
Endemic health problems	2	2	1	18	7	30	7.5
Senerage'drainage facility	0	1	0	3	6	10	2.5
Garbage Collection	1	0	0	0	1	2	0.5
Total	80	79	80	79	80	398	100

The major Problems facing the villagers were the absence of credit facilities that could make it easier for them to get loans, and the non-availability of some of the social services, like, dispensaries and market places. Mahutanga residents badly needed a dispensary, electricity and grain mills. 27 Ifakara households felt that the absence of good roads in the town was another problem, and 24 household heads of Kikwawila felt that the low incomes of the villagers was making it difficult for them to do profitable business.

Insufficient incomes and the rising cost of living were burning issues to 97% of Ifakara households. Other problems were the high cost of education, absence of good schools, unemployment famine, and the rising costs of farm inputs, farm implements, and medical treatment.

#### 8 SUMMARY AND RECOMMENDATIONS

# 8.1 Study Objectives and Methodology

A household **survey** was conducted in Ifakara town and in Lumemo, Mahutanga, Kibaoni, and Kikwawila **rural villages** that surround the town. 80 households from each of the five locations were selected systematically and interviewed between 15/11/98 and 25/11/98. The total sample size was **400 households.** A questionnaire that had 45 questions was used for data collection.

The main **objectives** of the study were to determine household poverty levels in the five locations, **to identify** the various survival and accumulation strategies adopted by the households, and to find out how the households exploited the rural resources and the urban

facilities in their survival and accumulation strategies. Annual household expenditure per adult-equivalent was used as an indicator of the household's poverty level.

It should be noted that deriving accurate household expenditure figures is difficult. But the figures presented in this report are, however, considered to be of the right magnitude although the difficulty encountered in quantifying the values of barter trade, 'free goods' such as firewood and meat from game animals, as well as remittances into households from the outside, may understate the level of household consumption.

### 8.2 **Poverty Levels**

The mean Annual Expenditure Per Adult - Equivalent was Tshs. 245,524 for all the households, Tshs 260,946 for Ifakara households, and Tshs 241,669 for the rural households. Ifakara households were, on the average, better off than the rural households. The World Bank (1996a) obtained a mean annual expenditure per adult - equivalent of Tshs. 183,162 for Tanzania, Tshs 146,297 for the rural households, and Tshs. 230,667 for the urban households. Assuming the World Banks poverty line of \$1 a day per adult-equivalent, 58% of the Ifakara households, and 64% of the rural households were below the poverty line.

While 36% of the households used tap water for drinking and 62.5% fetched water from wells or boreholes, 96.5% of the households used pit latrines. The toilets of 52.3% of the households got flooded during the rainy seasons. 98.5% of the households used either charcoal or firewood. For cooking, and 27% of the households had an average of more than 3 persons sleeping in a room.

99.5 percent of all households depended on either farming only or farming with other activities like doing business or keeping livestock, as sources of household income. The households that diversified their sources of income had higher expenditures per adult-equivalent (Tshs. 2602, 872) than those whose only source was farming (Tshs. 229,828).

### 8.3 Survival and Accumulation Strategies

Ifakara town households used the rural land extensively in their survival and accumulation strategies. 86.3% of the households had farms outside the town; about 99% of them cultivated their farms in the surrounding rural villages. On the other hand, four Ifakara facilities attracted the rural households in their survival and accumulation strategies: the town market, the hospital, the day secondary school, and the grain milling machines. On the average, in a month, a rural household used the market 13 times, the hospital 3 times, the secondary school 18 times, and the town grain milling machines 3 times.

Other survival strategies adopted by the poor households included doing piece work, changing the type of diet taken, doing petty businesses, selling livestock, fishing, brewing and selling local liquor, pottery, and selling local carpets.

Some households 'joined forces' to form clubs, associations and co-operative societies as a means of surviving and accumulating wealth. The most notable ones were the savings and credit society that included all Kilombero district employees as members, and a burial club of all teachers in Ifakara division. Others were religious clubs, and rotating credit associations.

#### 8.4 Recommendations

- (a) Although the average household expenditure per adult equivalent in the study locations was much higher (Tshs. 245,524) than the 1996 Tanzania's average expenditure (Ts-hs. 183.162), the percentage of households falling below the poverty line (62.5%) was greater than the 1995 PPA's estimate of 58.6% (World Bank, 1996a, p67). The fact that most of the households depended on a single source of income only and cultivated small farms is the reason. Also most of the households in Ifakara were unemployed for about four months after the farming season. The Ifakara households should diversify their sources of income, cultivate larger farms, and look for alternative ways of being fully employed throughout the year.
- (b) One of the most abundant, but greatly under-utilised resources in Ifakara is water. The households should use the water from the Kilombero and Lumemo rivers and the KATRIN extension services in order to adopt irrigated farming. That will make the residents fully employed throughout the year. Formerly, the inhabitants of the Kilombero valley used traditional methods to tap water from the rivers and used it for agricultural irrigation. The practice has been abandoned mainly because most of the people found it to be too involving. The Ifakara residents should reconsider and be motivated to use the cheap traditional methods of agricultural irrigation to increase crop production.
- (c) The high cost of farm inputs, farm implements, education, and medical treatment, and availability of loans, are other areas that the policy makers should look into. Since agriculture is the major economic activity in Ifakara, and a source of income to 99.5% of the households, use of modern farming techniques is very crucial. Ifakara households, on their part should establish community-based special funds for meeting the costs of such inputs. Alternatively, the ailing Ulanga and Kilombero Co-operative Union (UKICU) should be revamped so that it can supply the inputs at reasonable prices. They should also grow cash crops, like cotton. The farmers in Ifakara should be educated and encouraged to use animal and compost manure which are cheaper.

- (d) Due to non-availability of jobs in the formal sector, the youth, in Ifakara, should be encouraged to consider self-employment which will help them raise their incomes. Mechanisms should be established to ensure that the few who manage to get loans from the district's Youth Development and Women Development Funds use the money well.
- (e) Education is another asset that Ifakara residents should try to acquireand utilize. In 1988, 44.2% of the residents in Kilombero district aged 5 years and above had never attended school. (Bureau of Statistics, 1995). In this study, the mean education of the household heads was 5 years, although, in Tanzania, primary education up to standard 7 is compulsory. But education of the household head was an important determinant of a household's likelihood of being non-poor. Adult education and targeting youth out-of school should be encouraged.
- (f) To broaden choices and opportunities for households to diversify their incomes, planners and policy makers should seek ways of improving access to rural markets, providing necessary supporting infrastructure and services in Ifakara town and the surrounding rural areas, and creating an appropriate regulatory environment in support of farm and non-farm production and employment. By assisting households to diversify their incomes in this way, planners could promote the larger goals of raising incomes, creating employment opportunities, and promoting sustainable development in Ifakara.
- (g) The reported associational activities carried out by Ifakara households should be improved and strengthened. Better organised community-based cooperative societies could be formed to take over some of the not-so-well organised mutual support networks like rotating savings and credit associations, burial clubs etc.
- (h) The KATRIN is an important institution in the government's efforts to eradicate poverty, but it is currently facing a lot of financial problems. The government should consider reassessing the role of the Institute in light of changing socioeconomic needs and provide the institute with enough funds to enable it offer its extension services to Ifakara households more efficiently. The government should look for alternative funding sources to make it fully operational.
- (i) In order to solve the chronic transport problems to Chita, Mahenge, and Malinyi from Ifakara, the district administrators and politicians should look for other investors in the transport sector. Initially the administrators should improve the roads to these places, and, at the same time, limit the number of business licences issued to *the passenger lorry* operators and put conditions for issuing licences to such operators so as to attract some transporters to send descent buses to these places. An exposure to other operators of

passenger lorries such as in Zanzibar town and some rural villages like Mkokotoni could be an added advantage.

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