THE ROLE OF WOMEN'S INCOME GENERATING ACTIVITIES IN HOUSEHOLD FOOD SECURITY IN THE URBAN POOR: THE CASE OF TEMEKE DISTRICT IN DAR ES SALAAM REGION

BY

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DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTERS OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION OF SOKOINE UNIVERSITY OF AGRICULTURE, MOROGORO

ABSTRACT

The study reported here describes the contribution of women's income generating activities in household food security with respect to nutritional status of children in the urban poor. The study was conducted in Temeke District, Dar es Salaam Region, Tanzania. The general objective was to investigate the contribution of women's income generating activities in household food security. Specifically the study identified and characterized income generating activities undertaken by women, examined the level of income generated through women's income generating activities, assessed the contribution of women and men to household expenditure on food and other items and assessed the nutritional status of children below five years of age in participating households. A cross sectional single visit survey was conducted on a randomly selected sample of 80 households. A total of 80 women were interviewed using a pre-tested structured questionnaire. Nutritional status of children below five years of age was assessed by anthropometric methods. Weight-for-age was used as an indicator of nutritional status. Data were analyzed using the Statistical Package for Social Science (SPSS) Programme. The findings show that, income generating activities carried out by women are small-scale activities that provide services. Among those identified in this study include food vending "mama ntilie", vegetable cultivation, sale of charcoal and local brew. Others included sewing, handicraft, hair plaiting, vegetable and fruit stalls, sale of refreshments (soft drinks, juices and beer) and video show. These activities were hampered by poor infrastructure, low use of capital, lack of business education and lack of group

mobilization. Women earned an average of 34 237.98 Tshs per month. Details on the expenditure pattern revealed that food had a higher priority for women than men. Women spent 37 percent and 33 percent of their earnings on food and non-food items respectively compared to 30 percent and 38.6 percent of men's earnings on food and non-food items respectively. Assessment of nutritional status of children indicated that 52.5 percent of children had normal weight for age while 47.6 percent were underweight compared to the national average of 28 percent. Assessment of factors associated with nutritional status of the children revealed that women's time in IGAs was negatively related to the children's weight-for-age, an indicator for nutritional status but the association was not significant at 5% level. Furthermore, the results indicate that women's income spent on food was significant and negatively related to nutritional status of children ($P = 0.05$) mainly due to the fact that these households solely depended on income earned from income generating activities for a living. As a result they used a small proportion of their income as an economic measure to ensure supplies throughout the year. Other factors that also contributed to poor nutritional status of children in the sampled households include lack of nutritional knowledge on the part of women and poor environmental sanitation in the area.

The study recommends the following:

(1) Training of women in marketing and managerial skills and providing them necessary resources to increase their productivity.

(2) Reduction of women's workload in different activities related to food security so

as to allow them more time in IGAs.

(3) Improve nutritional knowledge of women in order to make them understand the best use of their income.

DECLARATION

I, Ruth Laekya David Nkurlu do declare that this dissertation is my own original work and it has not been submitted for a degree award in any other University.

Signature .....

Date 5th November 2020.....

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ACKNOWLEDGEMENT

The completion of this work was made possible with a joint effort, which included a lot of people. The list of those whom selflessly contributed to the perfection of this study is headed by Mama Maria Nyerere and the late Mwalimu Julius Kambarage Nyerere for whom I am forever grateful for their support and faith they have had in me.

I also would like to give my special acknowledgement to my sponsors, Honorable Chancellor Al Noor Kassum and Mrs. Yasmin Kassum, who inspite of the meager resources at their disposal, were more than willing to see me through my studies. Their sponsorship made me gain a wealth of invaluable knowledge and experience.

Thanks to Mr. C. Sanga of South Centre for supporting me throughout the study and for helpful comments. To Professor Msolla, Professor Kinabo and Dr. F. T. Magayane, I thank them all for their impromptu decisions, which made me, commence my studies despite my reporting late for the programme.

My very sincere appreciation also goes to Dr. J. Kinabo and Mr. D. Mwaseba, under whose supervision this dissertation was prepared and completed. Their valuable criticisms, insights, constructive ideas and experiences contributed immensely to its successful completion.

Special thanks are equally accorded to all members of the Department of Agricultural Education and Extension and the Department of Food Science and Technology who, from my undergraduate to graduate programme, equipped me with some theoretical and analytical tools that enabled me to undertake this formidable and challenging task.

I am also indebted to the support provided by all my friends and colleagues particularly Mr. M. Zumo and Miss Paddy Flower.

And lastly, but in no way least, I am extremely grateful to my family for their understanding of the importance of my studies to me personally and to all of them. You have been my foundation, my reason and my support. Special thanks to my child Peter, who at his tender age had to learn to live away from me. Thanks, it has only been for a while.

DEDICATION

My son Peter, with love.

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ACRONYMS AND ABBREVIATIONS

BACAWA	Baby Care Women's Associating
IGAs	Income Generating Activities
FAO	Food and Agriculture Organization of the United Nation
GDP	Gross Domestic Production
ILO	International Labour Organization
MDB	Marketing Development Bureau
IMF	International Monetary Fund
NCHS	National Center for Health Statistics
NIGP	National Income Generating Project
SAP	Structural Adjustment Programme
TFNC	Tanzania Food and Nutrition Center
Tshs	Tanzanian Shillings
UNICEF	United Nations International Child Fund
URT	United Republic of Tanzania
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background

Food security at the household level is one of the greatest challenges in the developing countries. Food security is defined as "access by all people at all times to enough food for an active healthy life" (World Bank, 1986). In Tanzania, the issue of food security gained its strength and reality in the early 1970s and 1980s when agricultural food production recorded deficits because of severe drought and structural rigidity during these periods (Kavishe, 1993). The seriousness of the issue was seen from several measures made by government aimed at improving food security in the country. Among these measures were "Agriculture is a matter of life and death" and "food is life" campaigns of the early 1970s, national maize programme financed by the World Bank and implementation of Structural adjustment Programme (SAP) prescribed by the World Bank in the early 1980s. The implication behind these measures was first and foremost, food security is met by the country or the household own production and increase household access to food through price mechanisms and reorganisation of the marketing and distribution systems (URT, 1982, 1984a).

In urban areas, household food security is primarily a function of the real wage rate that is relative to food prices and the level of employment. Access to food by urban people is therefore a function of income, which determines the effective demand for food. In this respect, agricultural growth, infrastructure, and economy-wide policies, have

implication for prices of food, income and employment for urban population and hence food security.

However, it has been argued that while the food security objectives of the SAP were to increase household access to food, they have contributed significantly to household food insecurity in urban areas (Quisumbing *et al;* 1995). Policies related to SAP such as retrenchment, cost sharing and trade liberalisation have brought with them loss of employment especially for women, cost sharing in social services and increases in food prices resulting in loss of purchasing power, decline in household economic access to food and hence food insecurity (Kinabo, 1996). The situation has been made worse by high prices of food due partly to poor transport systems for transporting food from surplus areas (Ashimogo, 1995). The urban poor have particularly been more affected in terms of meeting their food needs. For example, the situation is such that a household would need to spend over half of monthly wage just for household maize meal required (MDB, 1999), excluding other necessary items for cooking and other needed food.

In Dar es Salaam, food insecurity is becoming an increasingly important problem and is aggravated by the fast growth of its population due to high birth rates and immigration from the countryside. In 1998 the annual growth rate for Dar es Salaam was about 8 percent, which by far exceeds the rate of growth of agriculture production averaging 1.4 percent annually (URT/Planning Commission, 1989). Currently, the population of Dar

es Salaam is estimated to be 3 million people.

Food insecurity of the urban households has compelled families to engage in activities that can earn income. These activities represent both intensification and diversification of household resource generation for meeting their daily needs particularly food. Although households from all income levels engage in these activities, they are crucial for food security of the poor. In the light of this, a study was carried out to investigate the contribution of women's IGAs to household food security in urban areas.

1.2 Problem Statement

Women have a central role to play in improving household food security because traditionally, they are producers, providers and income earners for the well being of their family. The impact of macro economic policies has undoubtedly been greater on women than on men not just because of difficulty in meeting food needs but also because of the implications for women as far as employment is concerned which has been to their disadvantage. Most women who were employed in low cadre jobs in the formal sector were retrenched in an effort to reduce civil servants. Termination of women's previous employment coupled with falling wages, reduction in the availability of wage work in the formal sector and rising prices of food forced women to engage in IGAs as an alternative employment either to supplement or else as the only available source of cash income in order to increase their purchasing power as providers.

The economic crisis has inevitably tended to extend women's role by increasing their responsibilities for providing cash income while maintaining their traditional role of reproduction and domestic work in the family. In addition, women have to perform all household chores hardly supported by use of improved tools. This affects the care of women themselves as well as that of household members particularly children and hence greater burden for women in family maintenance.

However, the capacity of women to generate income has often been under-utilised and even more unrecognised. It was for this reason that this study was conducted to find out the characteristics of people who are engaged in IGAs particularly women, the types and characteristics of activities that are carried out, the level of income generated and association of all these to the welfare of the family assessed in terms of nutritional status of under-five children in the participating households.

1.3 Justification

Food insecurity is becoming a growing problem in Dar es Salaam. This problem is exacerbated by the rapid population growth rate, and concurrent decline opportunities for employment, fall in income and high prices of food and other goods. Food insecurity is likely to affect most of the urban poor households. Alleviating food insecurity requires diversification of income sources with significant integration of women. Often times, African women bear responsibility for generating income in time of food shortages and economic constraints to ensure that household needs are met.

However, while IGAs are becoming more attractive, will not necessarily become productive if there are no specific measures for improving their productivity particularly since these are becoming more important part of household strategies for improving food security. Thus, improvement of IGAs mostly done by women may offer opportunity to improve household food security. In this study Temeke District, an area with a sizeable population of the urban poor was selected as a study area in order to examine how women in urban poor areas undertake IGAs to improve household food security. It is envisaged that the findings and information obtained from this study will draw lessons that can be supportive of efforts aimed at improving conditions of the urban poor especially women who play a big role in household food security. Furthermore, it is hoped that the findings of the study will contribute to a better understanding of household food security among the urban poor.

1.4 Objectives

1.4.1 General Objective

The general objective of the study was to investigate the contribution of women's IGAs to household food security in the study area.

1.4.2. Specific Objectives

(i) To identify and characterize IGAs undertaken by women in the study area.

(ii) To examine the level of income generated from the activities.

(iii) To assess the contribution of women and men to household food expenditure.

(iv) To assess the nutritional status of children under-five years of age in participating households.

1.5 Definition of Key Terms

(i) Income Generating Activities (IGAs): Any type of activity that generates cash.

(ii) Household: A household is the smallest planning and decisions making unit for production and consumption in a community. At the same time it represents the context in which an individual usually eats and otherwise relates to food. The resource base and decision taken in the household will determine how much food is produced or bought and how it is distributed within the household (Holmboe-Ottessen and Wandel, 1992).

CHAPTER TWO

LITERATURE REVIEW

2.1 Women's Income Generating Activities

IGAs, a result of growth of informal sector around growing cities, have become very important activity as the poor and unemployed seek to provide whatever goods and services so as to earn income to meet basic needs (Hubbard, 1995). The growing importance of IGAs in Tanzania is evidenced by its increasing size in the national economy. By 1990 this sector was contributing between twenty and thirty percent of GDP (Maliyamkono and Bagachwa, 1990). It is also gaining prominence in the household economy since it involves at least one member in almost every household. IGAs provide greater access for women than other sectors, which often require educational qualification beyond those held by women.

In rural areas about 90 percent of women are engaged in IGAs either in a group or as individuals (Mbughuni, 1994). Previously, women in rural areas were involved in agricultural sector, which was also more energy intensive than IGAs. However most women in rural areas did not control the income gained from agricultural production. This made them turn to economic activities to enable them earn independent incomes in order to fulfil their obligations (Temu, 1988). In urban areas, women represent about 53 percent of people engaged in IGAs. Street trading and small plots of vegetable cultivation are the most common occupations (Dulansey and Austin, 1991). It is understood that provision for food urban areas was mainly done by men. Opening up of

new income sources for women coincided with the erosion of the economic position of men. The growing inability of the wage employment sector to meet basic human needs, forced women to start their own small businesses both for employment and income generation so as to support their families (Ako, 1995). As Youssef and Rogers (1988) reported, 'women in developing countries generally join the work force as a result of financial necessity, so that their incomes must be devoted to survival needs'. Apart from creating employment, these activities are important in their contribution to food security through the income generated from product sales (Minde, 1988).

Studies done in different communities in Tanzania showed that women participation has risen from 7 percent in 1971 to 65 percent in the 1990's while their contribution to household economy has more than doubled. The income of some women who were retrenched and joined the informal sector have increased twenty times more than their former earnings and seven times more than their husband's salaries in the public sector (Tripp, 1994). It is therefore obvious that former obligations of men are being reversed because women's IGAs have generally become more economically rewarding than the wage earnings.

However experience has shown that in some cases women's participation in economic activities is actually disadvantageous to women, for they are not always able to secure the benefits of production comparable to those of men or to gain equal control over the products of their labour. Tripp (1981) found out that regardless of participating in IGAs

women earned far less cash than men because of limited resources such as capital, business skills, time and modern technologies. A study conducted in Mafia reported that a high proportion of women who were engaged in economic activities did not control the cash accrued from their activities. Instead it was men who had access to cash and therefore responsible for purchasing all the food which was not grown (Caplan, 1995).

Despite all these, IGAs undertaken by women may provide chances for women to become visible workers, perceive and identify themselves as economic beings, become organized, their activities be more linked to the mainstream economy and receive pay directly and control their earning (Youssef and Rogers, 1988). In the 1980s, for example, about two-third of women had no cash income but currently (1990s) it was reported that about 70 percent of women command some cash income (Tripp, 1992). Women's ability to earn income however meagre and their control over cash income has paved a way towards a better life. As Koda (1995) reported 'male spouses enjoy the services bought by women's income from IGAs. Women are now building houses, paying house rent, contributing school fees and maintain family as a whole'. Furthermore women have formed traditional saving groups so as to enable them to lend each other money and working tools for their enterprises (Mandara, 1998).

Women participation in IGAs has demonstrated the difficult position experienced by women in fulfilling their role as breadwinners for their families. Most women share

their time between IGAs and household functions. Rutashobya, (1995) pointed that although women's participation in IGAs has given them greater economic independence within the household their role has extended by increasing their responsibilities for providing cash income while maintaining their traditional roles in the family. These responsibilities are hardly supported by improved technologies thereby increasing workload for women. Therefore all competing demands on women's time may in one way or another affect their participation in economic activities and in providing for their families (Stewart, 1991). Nevertheless, women's growing need for cash, have propelled women to increase their participation in IGAs as a means of raising income needed in the households.

2.1.1 Types and characteristics of women's IGAs

Women in all social groups participate in IGAs. Most women are generally active in service oriented activities. These include among many others street food vending, selling of used clothes, petty trading, selling of charcoal and water, making tie and dye materials, weaving, small plot cultivation, poultry and livestock keeping, roads cleaning, dress making, pottery, local brewing and hair saloon. Studies on women's IGAs done in Morogoro township by Lyimo (1989) and Ismani, Iringa by Lugeye and Bashagi (1991) found out that most women were engaged in local brewing, sale of cooked food, handicraft, hair dressing and small retail trading such as sale of kerosene, drinks and charcoal. In Dar es Salaam women-dominated IGAs include local brewing, small plots of vegetable cultivation, hairdressing, making tie and dye materials, and

food vending.

IGAs however, may be human capital intensive, requiring specific skills and high capital investment hence there is a large variation in the characteristics of IGAs within and between women. The most common is amount of earnings that characterizes their IGAs. A number of studies on women's IGAs in Tanzania have shown that the majority of women in contrast to few richer women have earned low income due to low use of capital and inadequate managerial skills in running their businesses (Meghji and Virji, 1987; Kimbi, 1989; Mbise, 1992). Inadequate capital has also acted as a barrier for some women to enter in some of IGAs that are more profitable such as local brewing. Sufficient capital is required to purchase items such as working equipment (drums and containers, sugar and firewood). Poor women also tend to duplicate business activities (Malambugi, 1991), which lead to problem of considerable competition for market and lack of business sustainability.

A study conducted in Kenya on non-farm employment by Hoorweg *et al.*, (1995) showed that type of IGAs strongly determined the level of earnings. Women from richer households earned higher income in the study area. This was due to the fact that most of them operated big businesses or more than one type of IGAs because they had more time and capital. Lugeye and Bashagi (1991) found out that there was significant difference between income levels of the women who had two enterprises and those who had more than two enterprises. The average income of women with one to two

enterprises was 5 926 Tshs while those with more than two was 11 855 Tshs per month. Another study on women's IGAs by Nkoma (1982), indicated that 95 percent of women engaged in local brewing earned the best income, which was more than 10 000 Tshs per month.

Another feature of IGAs operated by women is location for their businesses. Holmboe-Ottessen and Wandel (1992) and Mwadime (1996) found out that IGAs undertaken by women such as handicraft and sale of cooked food occurred within the household compound. In this respect it was possible for women to perform domestic activities more closely than when IGAs are done away from home. In contrast to rural women, women IGAs in urban areas are characterised by more market hours a day (Cherop, 1996). Some of their activities may involve a lot of time leaving little time to attend to other duties that are under their sphere such as cooking and feeding their children. For example sale of food and local brewing activities are very time consuming. Holmboe-Ottesen *et al.*, (1989) reported that on average, local brewing requires two to three times the labour and time inputs required for domestic purposes.

Other activities, common among women, use resources produced in the households. Local brewing for instance is made from maize, millet and/or banana (Mwadime, 1996). Utilization of family food if not well planned may cost the households in terms of food security. Only when the activities do not involve the use of household supplies can they add to the household food security.

Most of women's IGAs use labour coming from the household pool and labour is rarely hired. Also women depend on skills developed from home and partly on home-based equipment (Minde, 1988).

2.2 Household Food Security Concept

Food security refers to "access by all people at all times to enough food for an active and healthy life" and "food insecurity" as the lack to this access (World Bank, 1986, 1988). The key elements that determine food security at any point in time are; availability of enough food for an active and healthy life, the access to it, and the guarantee that one has the access to it at any given time (Maxwell and Smith, 1992). Food availability requires adequate products from agriculture, smooth market operations, infrastructure and free flow of information (Holmboe-Ottesen and Wandel, 1992). Therefore the issue of food availability at the household level is closely linked to women who are providers of food to their families.

Availability of food however is not in itself a sufficient condition to food security. Failure to have easy access to enough food and the insecurity with regard to the access to it lead to food insecurity. Accessibility failure relates to Sen's concept of entitlement failure (Sen, 1991). Entitlement that a household can make to command sufficient food depends on its control over resources as conditioned by own income and exogenous transfers. Urban poor households may fail to command access to sufficient food due to several factors: poverty, unemployment, lack of access to IGAs, lack of credit, lack of

savings, and so forth. The miserable health environment in poor urban areas, population pressure and economic decline sometimes make the urban food security situation qualitatively different from rural areas. Typically, calorie consumption is lower in urban areas than in rural areas, partly because of differences in activity level (von Braun *et al.*, 1992).

Assured access to food is thus not sufficient for adequate consumption. Livelihood security also plays an important role. Davis (1993) argued that food security is but one objective people seek to realize in a wider context of the livelihood system that they rely on to exist. This is confirmed by other studies, which noted that food security in the short run may in fact be foregone by households (reduction in number of meals, changes in diet, poor food quality) in efforts to secure sustainability of their livelihood in the long run (Watts, 1983; Devereux, 1993). A study by de Waal (1989) on famine in Sudan, found out that people chose to go hungry in order to preserve assets and future livelihoods. Therefore fulfilment of the food needs on household is related to other basic needs. While it is indeed true that women's IGAs primacy is household access to food, no one can deny the fact that the income generated therefrom is also utilized for other purposes for the well being of a whole family. In the light of this, appropriate interventions that encompass all basic needs can economize on resource use and enhance household food security because there are vital inter-linkages among the different basic needs, which make them important components in addressing food security. Education has an important link with nutrition, health, earnings and

managerial efficiency. Active labour is linked to both food and health, while shelter has bearing on health and hence nutrition.

A household is said to be food insecure when it fails to meet its dietary food intake in terms of quality and quantity. Rukuni and Bernsten (1988) observed that food security is the ability of all households in a nation to acquire a calorie adequate diet throughout the year. They further reported that food security has two interrelated components: food availability through production, storage and trade; and access to food through purchases in the market from income earned or transfers. Therefore households must have sufficient income to purchase the food they are unable to grow for themselves.

Holmboe-Ottesen and Wandel (1992) explained that food accessibility is related to the access to resources for the procurement of food, the ability to generate income, whether in cash or in kind and the proportion of that income which is actually made available for food consumption purposes. It is not uncommon to note that quite a sizeable part of income whether in cash or in kind may be tied up in other basic human needs such as payment of house rent, school fees, medicine and medical supplies as well as in the repayment of loans.

Moreover, an important aspect of food security is the guarantee concerning the access to food. A household is indeed secure about its food if it can procure enough food now as well as in the future. Thus a distinction is made between transitory and chronic food

insecurity (World Bank, 1996). Transitory food insecurity is a temporary loss of access to food, caused for instance by loss of income, or increase in prices. Chronic food insecurity means that a household runs a continually risk of inability to meet food needs of household members (Dearden and Cassidy, 1990). While the transitory form may require measures to stabilise income and commands over food, the chronic form may rather need an emphasis on strategy for poverty alleviation. Although the prevalence of food insecurity is lower in urban areas than in rural areas, chronic food insecurity due to urban poverty is becoming a big problem with higher rates of urbanization (Hubbard, 1995). In urban areas households are likely to be in greater risks of chronic food insecurity in the form of higher levels of child malnutrition as urban population increases while there is inadequate employment opportunities or earnings are lower as well as living in impoverished conditions.

However, household food security is necessary but not sufficient condition in assuring satisfactory consumption and nutrition of the individual members. Despite having means of access households may choose to use its resources for other purposes that are not related to fulfilment of other basic human needs than procuring food. Therefore the extent to which household access to food is translated into consumption depends on several intra-household factors that may affect the nutritional situation particularly children. These factors include priorities that are put in food production and generation of cash; gender priorities that affect decision making with regard to the utilization of food and cash; gender roles and expectation with regard to food purchasing and

consumption, culture and nutritional knowledge that influence feeding practices and food distribution (von Braun *et al.*, 1992).

2.3 Nutritional Status of Children under Five Years of Age

One of the best indicators to understand whether or not the society has no problem on food security is by looking at the health and nutritional status of its population. Nutritional status of an individual is the outcome of an interaction between the inherited genetic potential and life conditions in the community (Keregero, 1989).

Assessment of the nutritional status in a community is necessary in order to map out the magnitude and geographical distribution of malnutrition as a public health problem, to discover and analyse the ecological factors that are directly or indirectly responsible and where possible to suggest appropriate corrective measures, preferably capable of being applied with community participation (Wood *et al.*, 1981).

Reduction in body size is considered one of the most important adjustments that individuals and populations can make in response to adverse environment, including nutrition deprivation. Among other adverse environmental factors than food that are of importance for child growth, are infectious diseases. Repeated infectious can initiate the process of becoming malnourished through depression of appetite and increased losses of body tissues. The converse is also true; episode of food restriction can increase the chances of severe infections. This means that a child is likely to have

reached a state of clinical malnutrition through a sequence of episodes, which may or may not have been initially triggered by the lack of available food (Payne, 1990). Thus good nutritional status is an indication that the society has adequate food intake. Poor nutritional status is an indication of either lack of enough food or disease (Lorri, 1990).

Three anthropometric measurements have been suggested to assess the nutritional status of a population. These include weight-for-age, weight-for-height and height-for-age. The World Health Organization (WHO, 1983) has recommenced that, anthropomentric indices distributions should be compared using percentiles and/or standard deviation scores derived from the reference data collected by the United States National Center for Health Statistics (NCHS).

In order to identify individuals at risk to malnutrition several systems are used. All utilize at least one anthropometric index and one or more cut off points defined as a designated percentage of the median of the reference population, based on functional impairment and/or clinical signs of deficiency or mortality risk (Gibson, 1990). These systems include percentiles, standard deviation scores, Gomez classification, Welcome classification and Waterlow classification. For some systems such as Gomez classification, both the severity and type of malnutrition are also defined. In the present study Gomez classification is used, and hence discussed.

Too low consumption of food results into under-nutrition, which is common among

children under-five years of age. Weight-for-age of under-fives is often used for obtaining such information (FAO, 1982b). Gomez classification, one of the earliest classification systems is based on weight-for-age indicator. The observed weight of a child is expressed as a percentage of the expected weight of a child of that age, using the 50^{th} percentile of the Harvard reference data as the reference point (Gibson, 1990). Malnutrition can then be classified into first, second and third degrees, corresponding to 90 percent to 76 percent, 75 percent to 61 percent and below 60 percent of the median of the Harvard weight-for-age reference data respectively (Gomez *et al.*, 1956).

However Gomez classification has been seen to have some disadvantages. This system does not provide estimate of the duration of malnutrition. A low-weight-for age may be the result of either (or both) of two conditions. A child that has been malnourished in the past, but is adequately nourished currently, will have a low weight-for-age; or a child adequately nourished previously but with current under-nutrition, will show a low weight-for-age. Also it does not differentiate between marasmus and kwashiorkor nor wasting and stunting, because height is not taken into account. As a result, children with a very low weight-for-age may not necessarily be malnourished; instead, their low weight may be appropriate for their short stature.

However, in a study conducted in Sri Lanka by Wandel (1989) it was found out that weigh-for-age indicator was most consistently related to socio-economic indicators. Therefore the use of this indicator would be more relevant in cases where the

household's material resources, including food are the main limiting factors for the nutritional well being of the household as a whole, including children.

2.4 Relationship between IGAs and Nutritional Status of Children

Engagement in IGAs affects the level of resources (time and money) in the household and the way they are distributed among different needs. IGAs can impact nutritional status through the effect of time spent in IGAs and the earned income on household food security and childcare. Women participation in productive activities may be important in relation to nutrition in the household because in most African cultures, women are generally responsible for making food available to a household. Such participation may augment the food availability in the household due to the contribution to household income through increased purchasing power, which in turn can improve nutritional status through household food (Mwadime, 1996).

A number of studies (Guyer, 1980; Tripp, 1982 and Pahl, 1983) have indicated that income earned by women is more related to nutritional status of children than income earned by men. The findings of these studies were confirmed by another study on household income and spending pattern from Zambia by Skjonsberg (1989) which indicated that despite the fact that women's cash income was generally lower than men's, a higher percentage of their earnings was allocated to food and more of the total calories to their children. Trenchard (1987) postulated the reason for this as being the fact that women are traditionally responsible for acquiring food for their families.

Second, although women's income tend to be smaller, they are often more regular while men's earnings from long distance trade and sales of products may be received only a few times a year. In a few situations however, not as much of income is spent on household food as might be expected. Income earned may be spent on non-food items. A study done in Zanzibar by Ako (1995) on household resources management found out that rich women used their earnings to meet more of their own consumption priorities like clothing and ornaments. This implies that even though women's income increases it may not lead to any positive effect on food accessibility and nutrition if non-food items are more favoured over food.

However poor households may face hard choice of either maintaining flow of income-however low-through allocation of more money in improving nutritional status of their children through purchase of food with high nutritional quality (von Braun *et al.*, 1992). The urban poor suffer more because of low income and increasing households' dependants. Francois (1982) reported that although economic activities of the urban poor may increase their income, they are sometimes found to have to pay more for house rent, clothing and other necessities including food, which cost more in big towns. Large family size combined with high costs of living in urban areas provide a limitation in the choice of food items for the majority thus resulting in poorly balanced diets. Therefore urban poor are more likely to have more number of malnourished children (Kumar, 1977).

The effect of income on nutritional status may also be indirectly through better sanitation and healthy of the children. A study in Kenya was unable to show significant positive effects of household income on nutritional status of the under-fives (Kennedy, 1989). Lack of joint promotion of health and sanitation in the event of increased incomes was the reason associated to the finding.

Efforts of the poor to obtain food implies spending most of their time in procuring food leaving little for the basic necessities of life such as family care. For instance in Rwanda, poor households spent relatively highly on travelling searching for food (von Braun *et al,* 1991a) implying a regular absence of adults from the home. The absence of adult caretaker may adversely affect the care of children hence their nutritional status.

Among factors which determines food accessibility in the household is feeding frequency. Feeding frequency for Tanzania population has been seen to be low on average twice or three times a day (URT, 1992). Feeding frequencies of less than four times a day for children under-five is significantly associated with poor nutrition as compared to higher feeding frequencies (Kavishe *et al.,* 1985). Inadequate food resources in the household have consequences in feeding frequency. The limited time especially that of women for food preparation is the main reason that affects feeding frequencies in the household. Time allocation study done in Rukwa Tanzania by Wandel *et al.,* (1992) showed that competing demands for women's time due to increased economic work reduced the time they spent on cooking thus undermined the

feeding frequencies in the households. Households reduced eating frequencies to two meals per day. Children were fed less frequently on average twice or three times a day. Similar patterns were also cited by Bleibergs *et al.,* (1980) and Mascarenhas (1983). Lower feeding frequencies affect the nutritional status of young children. Lyimo (1989) found out that women who were engaged in local brewing and sale of cooked food spent more of their time in the selling premises than at home hence higher number of undernourished children were found to be associated with these activities. Similarly Popkin and Solon from the Phillipines (1976) observed that even though mother's participation in different types of work including trading and farm work increased food purchases, the nutritional status of children was negatively affected. This was due to the fact that mothers had little time for food preparation and feeding their children.

However, sometimes a shift in women's labour may not have any effect if the employment is compatible with home activities, or if extended family and social support exist within the household. Winikoff *et al,* (1988) survey on causes and consequences of mothers' choice of activities done in Bangkok found out that among women who were involved in IGAs at home, their feeding pattern was the same as women who were not involved in IGAs or wage work. This was interpreted to mean that IGAs, through its effect on labour time allocated to domestic activities, indirectly influenced feeding pattern. Feeding pattern, in turn, influenced the children's nutritional status. Lazaro, (1996) in her study on the role of women in household economy in agricultural plantations in Morogoro found out that time spent by women in plantation

employment was directly related to children nutritional status. Although maternal employment status affected childcare, there was no significant association due to availability of other older children and relatives who helped in the absence of the mother.

Studies from the settlement schemes in Sri Lanka showed that women spent large parts of their day in agricultural production (Lund 1979) to the disadvantage of children's welfare. But with improvement in the financial situation nutritional status improved because women were able to hire labour or acquire farm machinery. It implies that acquisition of improved tools and availability of laborers reduced their workload and time that made them to spend most of their time at the household premise to take care of the children.

CHAPTER THREE

METHODOLOGY

3.1 Description of the Study Area

The study was conducted in Temeke District in Dar es Salaam region. Dar es Salaam region lies between 6° 34' and 7° 10' South on the West Indian coastline, stretching about 100 km along the coast from the mouth of the Mpiji river in the North to beyond the mouth of the Mzinga river in the South. Dar es Salaam has about 1 129 km² of land, of which about 66 838 hectares can be utilized for agriculture and livestock.

According to the 1988 national census, the region had a population of 1 360 000 people. The population growth rate is 8 percent annually compared to the average annual growth for all urban districts combined which was 4.1 percent between 1978 and 1988 and well above the national growth rate of 2.8 percent annually (URT/Planning Commission, 1989). Based on this rate of growth the region was estimated to have a population of more than 2 004 476 people in 1995. Dar es Salaam region usually receives about 700-1000 mm of rainfall per year with two seasons of rain: long rains and short rains. The short rains last from November till January whereas the long rains last from March till May (Shishira *et al.*, 1984).

Temeke district is among the high-density areas in Dar es Salaam, comprising an area of 672 km² with a population of about 913 833 people (URT/Planning commission, 1995). The population density includes both migrant and indigenous people. It is

situated in the Southern East of Dar es Salaam city. It borders the Indian Ocean in the East, Mkuranga belt in the Coast region in the south, and Ilala District in the Northwest. Administratively, Temeke District comprises 3 Divisions: Mbagala, Chang'ombe, and Kigamboni. The divisions are divided into 16 Wards out of which, 4 urban wards from Mbagala division were selected for the study. These were Mbagala, Charambe, Chamazi, and Tuangoma. In this respect the district was chosen for the study because it has a sizeable population of the urban poor and some of these are actively involved in IGAs.

Economic Activities

Economic activities in Dar es Salaam include industrial production and commercial services. About 74 percent of the residents in the region are able bodied. Of these 19 percent work in public services and in industries, 11.2 percent are small- scale farmers and 46.2 percent are unemployed. Other economic activities include petty businesses such as vegetable and fruit cultivation, poultry keeping, livestock keeping and street foods.

Agriculture

About 66 500 hectares of land can be used for cultivation under rain fed condition. However, only 3 000 hectares are currently cultivated under rain fed condition. The main food crops are cassava, sweet potatoes, paddy, legumes, maize, coconut and millet. The production of food is entirely for home consumption except for a few who

produce for the market. Dar es Salaam region is producing only 14 percent of its food requirements, the remaining 86 percent come from other regions and outside the country. Therefore most households depend on food purchased from local markets than food from own production. In this regard food availability is tied not only to food production cycle, but also to the income cycle. For instance, shortage of income during the time when food is available may still cause household food insecurity for households that are not producing their own food.

Social Services

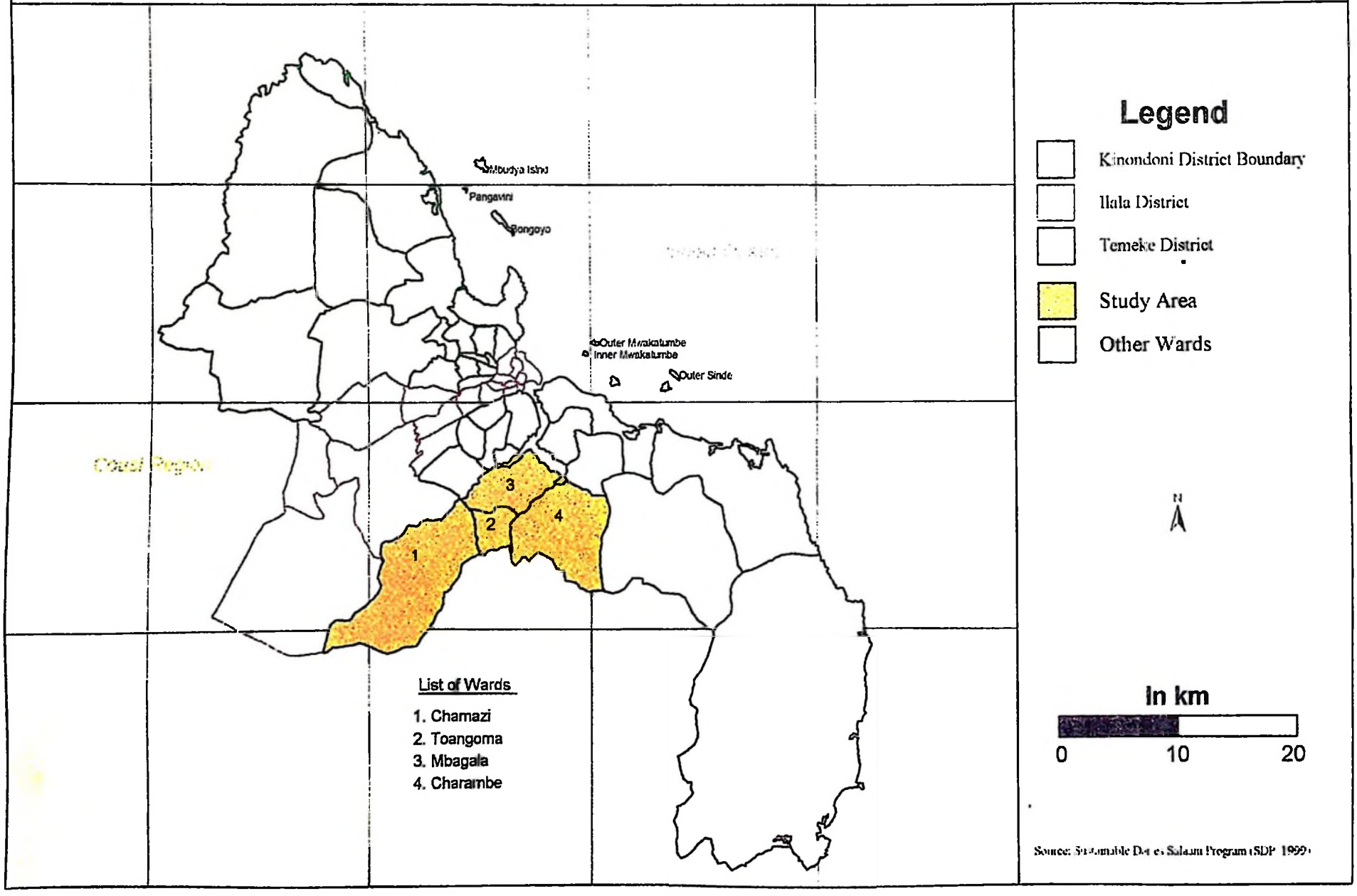
Regarding health facilities they include 17 hospitals, 13 health centres, 290 dispensaries and one referral hospital. Hospitals are owned by government or private operators. The ratio of population to medical doctor was 1:4 200 in 1995.

With respect to educational facilities the region has 164 primary schools enrolling about 200 000 pupils, 27 secondary schools and 11 technical centres. However these schools are in shortage of classrooms, desks, teachers and staff houses.

Water provision particularly piped water is inadequate because pipes are dilapidated, also due to increased population. Most households purchase water from vendors and other households get water from unprotected wells.

Dar es Salaam Region

Temeke District - Study Area



Houses are constructed from local materials such as mud, tree poles, and tin roofing, with little or no protection on doors and windows from mosquitoes and other disease vectors. Many houses have been built in squatter areas where land tenure is a problem. In many places the houses are overcrowded. Many houses are inaccessible except by foot because of the poor road network. Very few people own houses for rent. However, most of the people are tenants in rented houses. Rents and occupancy rates tend to be high.

3.2 Study Design and Sampling Procedure

The design of this study involved a cross-sectional single visit survey. The sample for the study was obtained using a four-stage sampling procedure as follows: The first stage involved purposive selection of 1 Division out of 3 Divisions of Temeke District. The second stage involved a purposive selection of 4 wards. The Division and Wards were selected on the basis of their having a diversity of opportunities for households to generate income through IGAs. In the third stage 5 ten-cell units in each ward were randomly selected. And finally, in each ten-cell unit 4 households with a child below five years of age were selected randomly from a sampling frame prepared in each ten-cell unit. Thus the total sample size was 80 households.

3.3 Data Collection

Data for this study were collected through informal and formal surveys. Informal surveys were carried out to get an in depth understanding of issues related to IGAs

using a checklist (Appendix 1). A formal survey was conducted using a pre-tested interview schedule (Appendix 2) containing both open and closed-ended questions. The information collected included type and characteristics of IGAs, time allocation, level of income earned, household expenditure on food and other non-food items, and child nutritional status.

The schedule was formulated in English and then translated into Kiswahili for easy administration. The schedule was administered by the researcher and two trained enumerators. To ensure higher rate of response for the interview, the team conducted face-to-face interviews with the respondents either at home or at the activity site.

Secondary data were obtained from various sources such as Sokoine University of Agriculture library, CARE-TANZANIA, Tanzania Food and Nutrition Centre (TFNC) and National Income Generating Project (NIGP).

3.4 Assessment of Nutritional Status

Nutritional status of children can be assessed by anthropometric methods. The anthropometric information is useful complements needed to capture the various dimensions of food insecurity. Although other methods (clinical, biochemical and immunological tests) have been used to evaluate nutritional status, anthropometry is considered the most valuable technique for the assessment of the nutritional status of children in developing countries, because it is cheap, quick and easy to conduct in a

large population (WHO, 1987).

The nutritional status of children below five years of age was assessed using weight-for-age as an indicator. The researcher using a calibrated Salter spring scale provided by CARE-TANZANIA weighed each of the under-fives in the sample households. Age was calculated from the birth date recorded on the Road to Health Cards. Weight of each child was compared to the weight of a reference population at 50^{th} percentile of the United State National Center for Health Statistics of reference population data (WHO, 1983) and presented as percentage of the reference weight at a particular age as shown below:

$$\% \text{ Weight for age} = \frac{\text{Child's recorded weight}}{\text{Reference weight for age}} \times 100$$

Gomez classification was used to classify children into different categories. Children with weight-for-age above 90% were considered normal, those falling between 76-90% were considered mildly malnourished and moderately malnourished were those children falling between 61-75% while children falling below or at 60% were considered severely malnourished (Gomez *et al.*, 1956).

3.5 Assessment of Food Consumption

Household food consumption was determined qualitatively using food frequency and types of food items of individual households. The aim was to assess the frequency with

which certain food items or food groups were consumed during a specified time e.g. daily, weekly or monthly. The schedule consisted of a list of foods and a set of frequency of use response categories (Appendix 3).

3.6 Data Analysis

Responses from the schedule were coded, summarized, and then entered on a computer. Analysis was done, using Statistical Package for Social Science (SPSS) PC+ version 4.1 (Norusis/SPSS Inc., 1995) computer programme. Descriptive statistics such as frequency distribution, and cross tabulation were used.

The contribution of women's IGAs to nutritional status of under-fives was determined using a regression model of the following form: -

$$Nsij = f(Xi)$$

Where:

Nsij = Nutritional status of each child i; < 5 years of age in household j as measured by percentage of reference population, weight-for-age.

Xi = Explanatory variable (Family size, women's income spent on food, men's income spent on food, women's income, education of women, women's time spent in IGAs and domestic activities).

CHAPTER FOUR

RESULTS AND DICUSSION

4.1 Introduction

This chapter presents the results and discussion of the study. It addresses, among others, the following: sample characteristics, types and characteristics of IGAs undertaken by women, the level of income generated by women through women's IGAs, the contribution of women and men to food expenditure and the nutritional status of children under five years of age in participating households.

4.2 Results

4.2.1 Sample Characteristics

Age and marital status

The distribution of respondents by age and marital status is presented in Table 1. About 41.3% of sampled women were between 29-39 years. Respondents between 18-28 years were 35% and 16.3% were between 40-49 years. Respondents in these age categories represented economically active population in the area. The results also showed that 53.8% were married women. Unmarried women, divorced and widowed women were 20%, 18.8% and 7.5% respectively.

Table 1: Age distribution of the respondents in the sampled households (n=80)

Age	Unmarried		Married		Widowed		Divorced		Total number	Total percent
	n	%	n	%	n	%	n	%	n	%
18 – 28	8	10.0	13	16.3	2	2.5	5	6.3	28	35.0
29 – 39	6	7.5	18	22.5	4	5.0	5	6.3	33	41.3
40 – 49	2	2.5	8	10.0	0	0.0	3	3.8	13	16.3
Above 49	0	0.0	4	5.0	0	0.0	2	2.5	6	7.5
Total	16	20.0	43	53.8	6	7.5	15	18.8	80	100

Education Level

The results in Table 2 indicate that the majority (61.3%) of the respondents had attained primary education as their highest education level. There was also a significant portion of the population (27.5%) who had never been to school.

Table 2: Education level of the respondents in the study area (n=80)

Education level	n	Percent
Never been to school	22	27.5
Adult education	6	7.5
Primary education	49	61.3
Secondary education	3	3.6
Total	80	100.0

Family size

The results in Table 3 indicate that about 50% and 45% of households had between 1-5 and 6-10 members in their households respectively.

Table 3: Distribution of respondents by family size (n=80)

Number of individuals	n	Percent
1 – 5	40	50.0
6 – 10	36	45.0
11 – 15	4	5.0
Total	80	100.0

Sources of income

In this study, household major income sources included salary or wage, vegetable cultivation, and off farm IGAs. Table 4 indicates that 77% of the respondents depended on IGAs as their main source of income. Remittances from children and relatives, and rents from rooms were the other sources of income to some households.

Table 4: Major source of household income (n=80)

Source of income	n	Percent
Salary / wage	18	22.5
Vegetable cultivation	8	10.0
IGAs	54	67.5
Total	80	100.0

4.2.3 Types of IGAs

IGAs include both farm and non-farm activities. The study identified 9 main types of IGAs. These included food vending (selling buns, soup and cooked food) vegetable cultivation, sale of charcoal, sale of local brew, hair plaiting, sewing or handicraft, vegetable and fruit stalls, kiosks for refreshments and video show. Table 5 indicates that food vending was the most dominant activity (62.5%) carried out by most of married and divorced women.

Table 5: IGAs undertaken by marital status (n=80)

IGAs	Marital status									
	Unmarried		Married		Widowed		Divorced		Total	
	n	%	n	%	n	%	n	%	n	%
Food vending	5	6.3	34	42.5	1	1.3	10	12.5	50	62.5
Vegetable cultivation	2	2.5	2	2.5	3	3.8	1	1.3	8	10.0
Sale of charcoal	0	0.0	3	3.8	1	1.3	0	0.0	4	5.0
Sale of local brew	1	1.3	1	1.3	0	0.0	1	1.3	3	3.8
Hair plaiting	2	2.5	0	0.0	0	0.0	1	1.3	3	3.8
Sewing/handicraft	3	3.8	2	2.5	0	0.0	0	0.0	5	6.3
Vegetable and fruit stall	1	1.3	1	1.3	0	0.0	2	2.5	4	5.0
Kiosk for refreshments	2	2.5	0	0.0	0	0.0	0	0.0	2	2.5
Video show	0	0.0	1	1.3	0	0.0	0	0.0	1	1.3
Total	16	20.0	43	53.8	6	7.5	15	18.8	80	100

results are presented in Table 7.

Table 7: Source of initial capital invested in IGAs (n=80)

Source of capital	n	Percent
Husband	37	46.3
Loan from relative/friends	21	26.3
Upatu*	13	16.3
Sale of assets	7	8.8
Prior employment	1	1.3
NGO	1	1.3
Total	80	100.0

* A small rotating traditional credit association.

Majority (46%) of respondents obtained initial capital from husbands. Twenty three percent reported that they received loan advances from friends or relatives and 16.3% obtained through their own savings through "upatu". Upatu is a small rotating credit association in a size of four up to ten people and tend to be constituted on the basis of common locality or neighbourhood. The amount of money contributed tend to vary with respect to class of women who save together (Tripp, 1989).

Location of the business

The study found out that 58.8 %operated in non-residential premises and 41.3 percent of the respondents operated their IGAs in their residential premises. Majority (59%) of the respondents located their business in non-residential areas such as at markets or

construction sites because many customers frequent them. Those who located their businesses in residential areas do so in order to enable them to look after their families while carrying out their activities.

The study also investigated the type of structures where respondents undertook their IGAs. The results as presented in Table 8 show that majority of the respondents (46%) operated in the open air or make shift structures and 22.5%operated in mud structures. A higher percentage of women involved in food vending (41.3%) operated in open air or make shift structures.

Table 8: Type of structures where IGAs are undertaken (n=80)

IGAs	Open air /makeshift		Mud		Wooden		Permanent secure	
	n	%	n	%	n	%	n	%
Food vending	33	41.3	13	16.3	4	5.0	0	0.0
Sale of charcoal	2	2.5	1	1.3	0	0.0	1	1.3
Sale of local brew	0	0.0	3	3.8	0	0.0	0	0.0
Hair plaiting	0	0.0	0	0.0	0	0.0	3	3.8
Sewing / handicraft	0	0.0	1	1.3	2	2.5	2	2.5
Vegetable stall	2	2.5		1.3	2	2.5	0	0.0
Kiosk for refreshments	0	0.0	0	0.0	2	2.5	0	0.0
Video show	0	0.0	0	0.0	0	0.0	1	1.3
Total	37	46.3	18	22.5	10	12.5	7	8.8

Source of labour

Results summarized in Table 9 show that nearly 98% of the respondents employed unpaid family labour.

Table 9: Source of labour (n=80)

Source of labour	n	Percent
Unpaid family worker	78	97.5
Paid employees	1	1.3
Both	1	1.3
Total	80	100.0

Respondents were also asked whether they received any training in running their businesses. A higher percentage of the respondents (88.8%) have not received any training in running businesses. For a few who received training the training was done at their wards as seminars on book keeping and only one woman received training for nine months on tailoring at Baby Care Women's Association (BACAWA) at Kinondoni district in Dar es Salaam.

Women's labour time allocation in IGAs

The study showed that women allocated different times to the activities carried out in a day. The results presented in Table 10 indicate that majority (68.8%) of the respondents allocated above 5 hours in IGAs. Most of them were involved in Video show, sale of local brew, hair plaiting, kiosk for refreshment, and food vending. Fifty percent of the respondents allocated less than 3 hours in domestic activities. Higher percentages were

contributed from respondents who were involved in local brewing, hair plaiting, video show and food vending. Also 48.8% allocated between 3-5 hours in domestic activities and higher percentages were contributed from those who were involved in kiosk for refreshment, vegetable stall, sale of charcoal, sewing/handicraft and vegetable cultivation.

Table 10: Time allocated by women in IGAs (n=80)

Type of IGAs	Time allocated in domestic activities						Time allocated in IGAs					
	< 3hrs		3-5 Hrs		> 5 Hrs		< 3 Hrs		3-5 Hrs		>5 hrs	
	n	%	n	%	n	%	n	%	n	%	n	%
Food vending	31	8.8	19	23.8	0	0.0	1	1.3	10	12.5	39	48.8
Vegetable cultivation	2	2.5	5	6.3	1	1.3	0	0.0	8	10.0	0	0.0
Sale of charcoal	0	0.0	4	5.0	0	0.0	0	0.0	1	1.3	3	3.8
Sale of local brew	3	3.8	0	0.0	0	0.0	0	0.0	0	0.0	3	3.8
Hair plaiting	3	3.8	0	0.0	0	0.0	0	0.0	0	0.0	3	3.8
Sewing/handicraft	0	0.0	45	6.3.	0	0.0	1	1.3	3	3.8	1	1.3
Vegetable and fruit stall	0	0.0	4	5.0	0	0.0	1	1.3	0	0.0	3	3.8
Kiosk for refreshments	0	0.0	2	2.5		0.0	0	0.0	0	0.0	2	2.5
Video show	1	1.3	0	0.0	0	0.0	0	0.0	0	0.0	1	1.3
Total	40	50.0	39	48.8	1	1.3	3	3.8	22	27.5	55	68.8

Women's labour time allocated in domestic activities

Domestic activities included household cleaning, food processing and preparation and childcare. Childcare involved feeding the children, washing them, and paying adequate time and attention. The results in Fig 1 show that majority of those who operated their activities at residential premises (86.3% and 68.7%) allocated few hours in food preparation and household cleaning respectively. About 26.7 percent

allocated 3.5 hours in childcare. A lower percentage of respondents operating at non-residential premises allocated few hours in all domestic activities. IGAs that were operated at non-residential premises by majority of the respondents include food vending, local brewing, hair plaiting, sewing/handicraft and vegetable cultivation. Whereas majority of the respondents involved in sale of charcoal, kiosk for refreshments, video show and vegetable and fruit stall operated at residential premises.

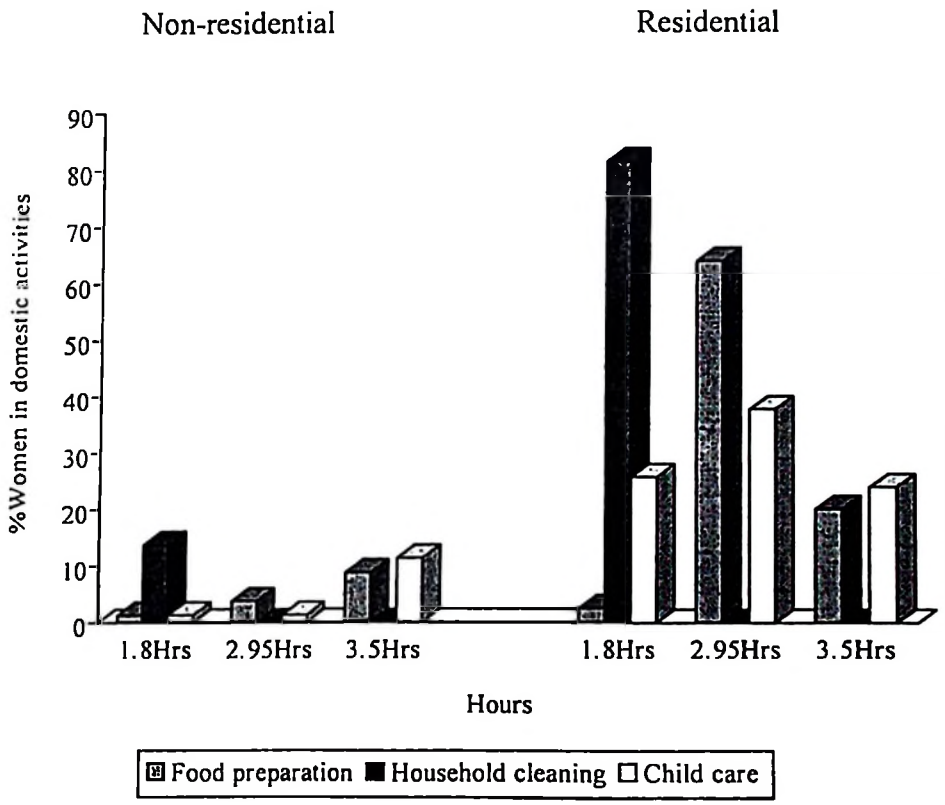


Fig. 1: Time allocated by women in domestic activities.

The level of income generated from IGAs

The income data was obtained by asking the respondents how much money they used in purchasing items for sale The items included maize flour, rice, beans, meat, fruits, vegetables, sugar, salt, soft drinks, water and cooking oil. Other items were cooking fuel, fabrics, handicraft materials, seeds, charcoal, videocassettes and artificial hairpieces. Furthermore, respondents were asked to tell how much money they earned from previous week activities and the results were estimated to represent earnings per month.

Table 11: Average expenditure per month for purchasing IGAs items (n=80)

Capital per month	Average income	n	Percent
Sewing/handicraft	5 440	5	
Vegetable cultivation	7 155	8	10.0
Vegetable and fruit stall	11 991	4	5.0
Sale of charcoal	15 000	4	5.0
Hair plaiting	15 300	3	3.8
Food vending	21 710	50	62.5
Kiosk for refreshments	22 010	2	2.5
Sale of local brew	22 345	3	5.0
Video show	37 800	1	1.3
Total		80	100

Overall mean expenditure for the whole sample = 17 639

The results in Table 11 indicate that respondents undertaking video show, sale of local brew, sale of soft drink and food vending spent an average of 37 800 Tshs, 22 345 Tshs, 22 010 Tshs and 21 710 Tshs per month respectively. This was more than the

overall mean (17 639 Tshs) spent by the entire sample.

The results on the level of income generated therefrom (Table 12) show that the overall mean income earned per month for the entire sample was 34 237 Tshs per month. The same IGAs that invested more for purchasing items for sale generated more than the overall mean income. The respondent undertaking video show (1.3%) earned the highest income averaged 86 800 Tshs per month. Most of respondents indicated that they have control over income earned from their businesses.

Table 12: Level of income earned from IGAs (n=80)

IGAs	Average income	n	Percent
Sewing/handicraft	13 050.00	5	6.3
Sale of charcoal	17 261.40	4	5.0
Vegetable cultivation	20 355.00	8	10.0
Vegetable stall	22 975.00	4	5.0
Hair plaiting	29 900.00	3	3.8
Sale of soft drink	34 750.00	2	2.5
Food vending	39 243.83	50	62.5
Local brewing	45 866.67	3	3.8
Video show	86 800.00	1	1.3
Total		80	100

Overall mean income generated from IGAs by the entire sample = 34 237.97

Data were then disagregated by marital status. The results (Table 13) show that divorced women earned ore income (33 581 Tshs) than others.

Table 13: Level of income generated by marital status (n=80)

Marital status	Level of income generated	n	Percent
Unmarried	31 957.81	16	20.0
Married	32 591.53	43	53.8
Divorced	34 900.74	15	18.8
Widowed	26 037.83	6	7.5
Total		80	100

The overall mean income = 34 237.98

4.2.5 Households income and expenditure

In this study the disagregation of expenditure pattern by gender within the households was done in order to give a general picture of the contribution of husband and wife to household expenditure for married couples. Expenditure items were grouped into three categories: (i) food (ii) non-food items (iii) investment. Non-food items included house rent, clothes, medical expenses, charcoal, tax, electricity, water, credit and personal needs such as cosmetics, cigarettes and beer. Investment included plots of land, house construction, radio, bicycle, school fees and savings.

In households with married couples, women were asked to explain how they spent income generated from IGAs and men were also asked to explain how their income earned from different activities was spent. Married women used more of their incomes to purchase food (37%) than non-food items (33%) and investment (29.9%) as

compared to men. Married men spent 30% on food, 38.6% on non-food items and 30.3% was used for investment (Fig 2).

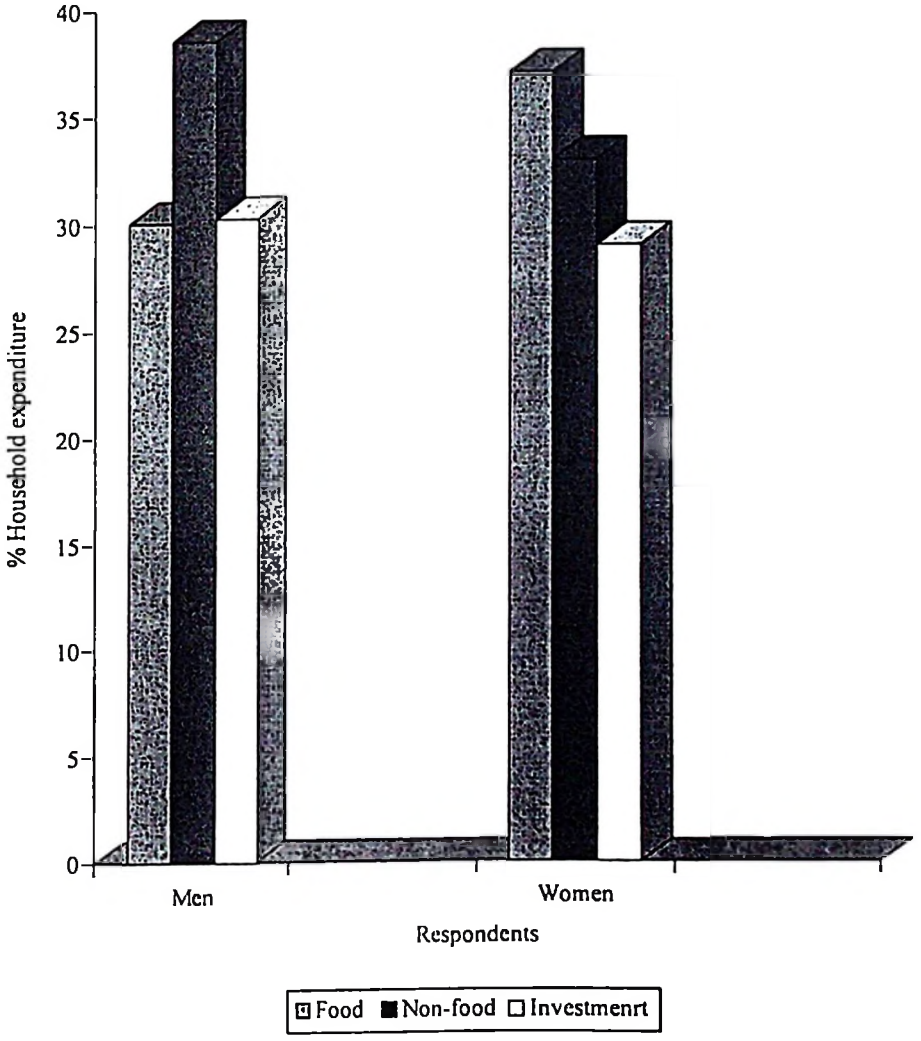


Fig. 2: Household expenditure pattern

Data were then disagregated by marital status. Married women spent 37% on food, 33% on non-food items and 29.9% for investment while single women spent about 47.1% of their income on food, 31.2% on non-food items and 26.6% was used for investment (Fig 3).

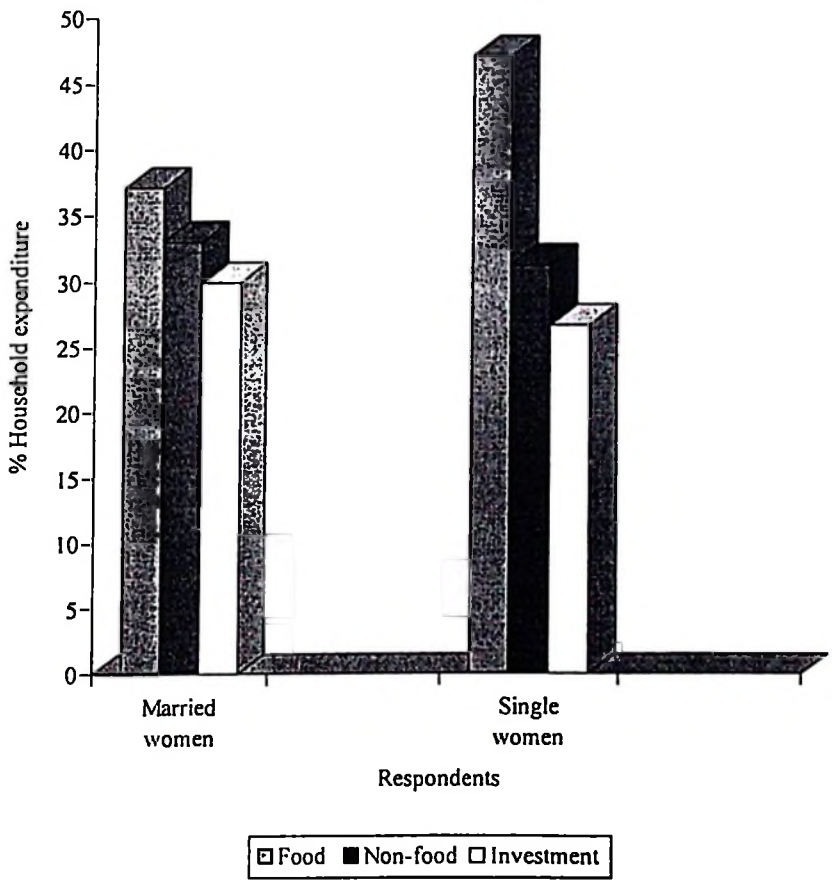


Fig. 3: Household expenditure by marital status

4.2.6 Household food consumption

Daily food purchases

Since food consumed in urban households is mainly from purchased sources there were different food items bought in the markets and these were reduced to four groups accepted for nutritional sciences: (1) carbohydrates, (2) Protein, (3) fat and (4) vitamins and minerals. As shown in Table 14 about majority (85%) of respondents indicated that they purchased food items from four main groups.

Table 14: Daily food purchases (n=80)

Food groups	n	Percent
Carbohydrates, protein, fat, vitamins and minerals	68	85.0
Carbohydrates and protein	1	1.3
Carbohydrates, fat, and protein	8	10.0
Carbohydrates, vitamins and minerals	3	3.8
Total	80	100

Type of meal

The study revealed that the three main staples consumed were maize, cassava and beans. Breakfast comprised mainly tea with either boiled cassava, buns or left over food like cooked rice. As indicated in Table 15, about 44% took tea and boiled cassava often during breakfast followed by 40 % who served tea with left over foods such as buns and boiled cassava. About 16% of the respondents took tea and fresh buns during breakfast. Most of the respondents, who served fresh buns for breakfast, were undertaking food vending IGAs that involved making buns. During lunch, the majority

(71.3%) consumed stiff porridge made from maize flour with sardine or vegetable. About 36.3% consumed stiff porridge; beans and vegetable for dinner; 30% consumed stiff porridge served with sardines and vegetable and only 11.3% consumed rice served with vegetable during dinner.

Table 15: Type of daily family meals (n=80)

Content	n	Percent
Breakfast		
Tea and buns	13	16.3
Tea and boiled cassava	35	43.8
Tea and left-over such as cooked rice	32	40.0
Total	80	100.0
Lunch		
Stiff porridge, beans and vegetable	20	25.0
Stiff porridge, meat and vegetable	3	3.8
Stiff porridge, sardine and vegetable	34	42.5
Stiff porridge and vegetable	23	28.8
Total	80	100.0
Dinner		
Stiff porridge, beans and vegetable	45	56.3
Rice, meat and vegetables	2	2.5
Stiff porridge, sardine and vegetable	24	30
Rice and vegetable	9	11.3
Total	80	100

Feeding frequencies

The Respondents were also asked to mention the number of meals their household consumed per day. The results are summarized in Table16. Most adults and children had three times a day.

Table 16: Feeding frequencies (n=80)

Number of meals	Children		Adults	
	n	Percent	n	Percent
Twice/day	11	13.6	4	5.0
Thrice per day	67	83.6	73	91.3
Four times / day	0	0	3	3.8
Total	80	100	80	100

Meal preparation

Results in Table 17 show women were responsible for preparation of meals while husbands were not.

Table 17: Person preparing meals for the household (n=80)

Person	Breakfast		Lunch		Dinner	
	n	Percent	n	Percent	n	Percent
Women	43	53.8	47	58.8	43	53.8
Female children	26	32.5	21	26.3	27	33.8
Female relatives	9	11.3	11	13.8	9	11.3
Helper	2	2.5	1	1.3	1	1.3
Husband	0	0.0	0.0	0.0	0	0.0
Total	80	100	80	100	80	100

Intra-household food distribution

The study shows that 65% of the respondents indicated that household members ate from a common pot.

4.2.7 Household coping strategies

During food shortages, households adopt different coping strategies. In this study it was observed that the majority (57.5%) of households undertook IGAs to generate income for food. Table 18 summarizes the results.

Table 18: Coping strategies during food shortages (n=80)

Strategies	n	Percent
Undertake IGAs	46	57.5
Reduce number of meals	13	16.3
Consume less preferred food/expensive foods	8	10
Take loans from relatives or friends	6	7.5
Eat food prepared for sale	4	5
Transfer children to relatives	3	3.8
Total	80	100.0

4.2.8 Child nutritional status

The nutritional status of children was determined and results are presented in Table 19. From the total sample of 80 women, about 53% of the children were normal, 41.3% had moderate and mild malnutrition and 6.3% were severely malnourished. In total, the

number of undernourished children was 47.5% against an average of about 28% for the whole country.

Table 19: Nutritional status of under-fives during the study period (n=80)

	Classification	n	Percent
Normal	> 90%	42	52.5
Mild malnutrition	76-90%	21	26.3
Moderate malnutrition	61-75%	12	15
Severe malnutrition	≤ 60%	5	6.3
Total		80	100

Source: The Gomez classification. Adapted from Gomez *et al.*, (1956)

Factors associated with nutritional status

A regression model was used to examine factors associated with child nutrition. The results are shown in Table 20. Education and women's time spent in IGAs were negatively related to child nutritional status, but not significant. Household size, men's income spent on food (proxy for men's income) and time spent by women in domestic activities were not significantly related to nutritional status of children. Women's income was positive and significantly related to nutritional status of under-fives. In addition, women's income spent on food was significantly related to children's nutritional status. The relationship was negative.

Table 20: Factors associated with nutritional status of children

Independent variable	B	SE B	BETA	T	SIG T
Education	-0.32	0.65	-0.31	-1.94	0.06
Women's time in IGAs	-0.05	0.15	-0.05	-0.33	0.74
Women's time in domestic activities	0.20	0.21	0.14	0.93	0.36
Women's income	2.81	11.28	0.43	2.19	0.03
Women's food expenditure	-1.14	4.87	-0.48	-2.35	0.02
Household size	0.001	0,07	-0.002	-0.02	0.99
Men's food expenditure	3.12	4.10	0.12	0.76	0.45
Constant	3.71	1.37		2.71	0.01

Multiple R	0.52126
R Square	0.27171
Adjusted R Square	0.10525
Standard Error	0.93358

4.3 Discussion

4.3.1 Sample Characteristics

The studied women were in the economic active group and were involved in different IGAs. Availability of an active labour force has an influence on food availability in the household through productive activities. Thus, participation of women in economic activities in the study area is likely going to improve the purchasing power of the households and therefore food availability.

It has also been observed that majority of women who were participating in the study were supporting quite a large number of dependants and had low formal education. Education and family size have been shown to be among the major social economic factors that increase vulnerability to food insecurity and undernutrition (Lorri and Kavishe, 1990). Nutritional knowledge regarding individual dietary needs, appropriate foods, feeding patterns and sanitation, are aspects that need to be learned. Women with more years of formal education are likely to influence these aspects. Education attainment of respondents (Table 3) indicated that higher percentage of women had only attained primary education as their highest level of education. This implies that mothers with less years of formal education are likely to know less about nutritional requirements of individual members within the households hence cannot distribute food to household members according to their nutritional needs. Education can also affect the level of earnings from

IGAs. Jonna and Otsuke *et al.*, (1999) in their study on off-farm employment among farm household in Central Luzon, Philippines observed that higher returns among farmers undertaking off-farm activities were from those with more years of formal education. Thus, amount of income generated from IGAs as influenced by education can impact food security through purchasing power or ability to budget properly. However, it has also been observed that some types of activities earn the best income regardless of the level of education. For example, Mascarenhas (1983) observed that women who were engaged in local brewing earned more income despite their low level of education. This would mean to suggest that local brew does not require sophisticated skills that go with higher level of formal education.

Larger family size on the other hand tends to strain the food budget especially in households with low income, resulting in inadequate feeding to the families as required. For instance the larger the family size the more the quantity of food needed to meet daily requirements. In the present study it was observed that 50 percent of respondents had more than five dependants in their households higher than the National average of 5 people (URT, 1988). However, households with many members of relatively older ages could contribute to the household resources than families with many younger members, who mainly consume resources (Kavishe, 1993). This implies that older children could help in domestic activities such as taking care of the very young ones while their parents are

involved in other activities.

4.3.2 Types of women's IGAs

The type of women's IGAs in this study included food vending, small plot for vegetable cultivation and sewing or handicraft. Other activities included sale of charcoal, sale of local brew, hair plaiting, vegetable and fruit stall, kiosk for refreshments and video show. The dominant activity undertaken by majority of women was food vending. Most of women had been in business for more than 3 years. They were forced to engage in IGAs because, among others lack of employment opportunities and high cost of living in the city. It was necessary to engage in IGAs so that they could provide resources or income to meet their daily needs in terms of food and other necessities. A study of women's entrepreneurs in Tanzania (Rutashobya, 1995) observed that, 90 percent of the respondents participated in IGAs as one of the ways to provide for their family daily subsistence. This implies that participation of women in these activities was not only for their own welfare but also for that of the rest of the family as well.

Ownership of IGAs was essentially individual. This could be due to the small size of the business. Small businesses by their nature do not give big returns enough to encourage individual to run them as joint ventures. Also people tend to believe that production under cooperative could attract government action with its attached legislation and

taxation. However, operating cooperatively would attract credit from financial markets because of its political appeal.

4.3.3 Characteristics of women's IGAs

Structures of IGAs

Most of IGAs were operated in what appeared to be less than optimal conditions. They were carried out along the streets, main roads, near the markets and construction sites. Food vending was being carried out in open air or makeshift structures made of wood or mud by most of women.

The main reason for operating on makeshift structures is to get customers. Women tend to follow customers in order to sale their products. Therefore makeshift structures allow mobility. However this has an effect on the health and nutritional status for women themselves as well as that of household members as they have to walk long distances, carrying heavy containers and they get back home tired unable to do other domestic activities.

Furthermore, this study observed open air operators, particularly food vendors did not use better containers to cover their foods. Food was therefore exposed to flies and dust. This may have caused food borne diseases to customers. Often times women were

harassed by city officials because of carrying out their activities in unhygienic condition. Also some people would not buy food sold on poor environment hence affecting the sales by women. However women would like very much to see that their products are marketable. This suggests that women were unable to acquire better food containers due to inadequate income.

Capital

An important aspect of the nature of women's IGAs was relatively small capital investment that was used to set up their businesses. The mean capital investment for all IGAs was 2 850 Tshs per month. This low figure underlines the ease of entry into the type of activities done by women. Initial capital was mainly obtained from husbands and relatives. The combined contribution of these sources of capital confirms that women's IGAs in the area relied on very limited sources of funds mostly coming from the family unit. It has been observed that few moneylenders would not risk lending large amount of money to poor women who appear to have no guarantee of success in business (Campbell, 1995). With small initial capital investment there is limited room for expansion.

Training in IGAs

The potential productivity of IGAs depends, among others, on training. This study

observed that the overwhelming proportion of women (89 percent) had not acquired any training in running their business. Instead most had copied skills from family members or friends. Many women were unable to attend training because in most cases besides paying fees, training required extra money for transportation, tuition, and incidentals. Lack of training could have been the main reason that made women join IGAs that require skills developed from home such as food vending.

Labour time allocated in IGAs and domestic activities

While there is genuine cause for appreciating women's increasing involvement in economic activities to earn income, one cannot ignore the fact that their participation has not relieved them of their reproductive role. Devoting more time in IGAs means that women had less time in performing other duties that were under their domain such as childcare, food preparation and other household chores.

The majority (83.5%) of women used more than 5 hours in attending to their businesses and most of them used less than 5 hours in domestic activities. Most of women operating their activities away from home allocated less time in domestic activities than women undertaking their business at residential premises. The workday for women in food vending, for example stretched from 5.00 a.m. to 2.00 p.m. They start by preparing items for sale, which also involved going to the market in town and at the seashore to purchase

items. It means that they are left with only few hours to do domestic work. This has a detrimental effect on the well being of children unless they have a reliable person at home to look after the children. Otherwise the mother is forced to stay with the small child all the time while doing her business. Again, this may lead to problems because the mother would be busy doing her work and would not find time to care for the child.

4.3.4 The level of income generated from women's IGAs

Income generated varied greatly depending on the type of IGAs undertaken. In the present study the mean income for the entire sample was 34 237.98 Tshs per month. This is higher than the official Government minimum salary of 30 000 Tshs per month (Yonah, 1999). Video show, local brewing, food vending and kiosk for refreshments were earning more income compared to other activities. On average, the level of income generated from video show was 86 800 Tshs per month while 45 866 Tshs was generated from local brewing, 39 243 Tshs was earned from food vending and 34 750 Tshs from kiosk for refreshments.

These activities were likely to generate more income than other activities because they are popular enterprises, attracting more customers in urban areas. For example a sizable part of the urban dwellers eat lunch from street food vendors. This means that these women are assured of daily income however small it may be for daily subsistence. The

lowest income generated was from sewing or handicraft which averaged 13 050.00 Tshs per month. Most probably people do not go for their products because of availability of used clothes sold at very cheap prices. The observation is in agreement with that of Tripp (1989), who reported that women's participation in IGAs has contributed much to household economy and that their income has increased more than wage earnings from the public sector. Although the income earned was low when compared to high cost of living in the city, regularity of their earnings is more important for daily subsistence.

Generally, IGAs undertaken by women are of small-scale economic activities that demand high use of time investment, however earning them low income as compared to high cost of living in the city. The degree to which the potential of women's IGAs can be increased will depend on how well and how fast the constraints affecting productivity are overcome, which include low capital investment, lack of credit, training and group mobilization.

4.3.5 Household expenditure pattern

Two crucial points have been observed in considering expenditure pattern. The first is the control of income and the second is the actual pattern of household expenditure with its implication on household food security. The choices of food versus non-food items is usually reflected in gender priorities and decision making power. A greater involvement of women in productive activities often allows them more say in how to spend their

income (Jacobsen, 1978). Furthermore, there is evidence from many societies that when women control cash, they generally spend more on food than men do (Holmboe-Ottessen and Wandel, 1992).

The study showed that expenditure on food was given a higher priority by women than men. Women spent more of their income earned from IGAs on food than men did although the difference was not significant. This confirms that in virtually all parts of the world women have traditionally had major responsibilities for feeding their families, thus, their priority is towards the food needs of their households (Shah, 1983).

Katona-Apte (1983) observed similar pattern of income expenditure. Employed women spent relatively more of their earnings on food than their spouses. In addition, women spending more on food reflect the nature of their expenditure. Women tend to spend their money as they earn a day, as such do not save much. This means that their income was immediately used for daily subsistence to meet food needs of the household. von Braun and Kennedy (1986) reported that income which usually comes in lump some seems to be more associated with the purchase of other items and investments than with the purchase of food. Therefore women spending less on non-food items might have indirectly supplemented on men's spending on other things, which were more expensive in order to cushion household financial constraints. The study seems to suggest that

women have become main providers of food in households. They have the responsibilities to make sure that food was available in their households and thus spent more on it as compared to men.

Expenditure on women's income in terms of marital status indicated that women spent almost the same amount of income on non-food items. Although single women earned less income than married, they spent more of their income on food than married women. This is probably because single women are sole family providers as such their income is more devoted to family needs than married women who are supported by their husbands.

4.3.6 Food consumption pattern

Meal type

For urban households, there is distinct hierarchy of food preference depending on the ability to access it. It has been observed that households will always go for a higher status food if they can afford it (Alderman and Garcia 1994). In addition, low income households buy inferior foods which are considered cheap (Immink and Alarcon, 1991).

Depending on meal type, food can be placed on the scale from higher status food to poor food without due consideration of its nutritional value or contribution. A combination of rice and meat or fish is considered superior food while poor diet includes stiff porridge

made of maize flour with sardine or dried beans, stiff porridge with various indigenous vegetables such as amaranthus, pumpkin leaves, cassava leaves and cowpea leaves. At extreme level of poverty stiff porridge is eaten alone without relish. From this rating, high status meal seems to be associated with palatability, high energy and protein content and is more costly.

Major staple foods in Dar es Salaam include rice, millet and cassava. However, because of easy preparation and palatability compared to millet and sorghum, urban households have resorted to consumption of stiff porridge made of maize flour, as a staple food (Campbell, 1995). This study observed that foods purchased for most of the households were mainly maize flour, cassava, sardines, dry beans, vegetables and coconuts. Women revealed that due to higher prices of food they have to reduce consumption of rice and meat, which are now considered superior and are eaten on few exceptional occasions e.g. during Eid el Fitr or Christmas celebrations.

The study showed that tea, boiled cassava and left overs such as buns and cooked rice were popular foods during breakfast. Most households consumed stiff porridge served with sardines or beans and vegetables during lunch and dinner. These were relatively cheaper compared to fresh fish and meat. The study has shown that types of meals eaten in these households were generally of low nutritional adequacy because reduced amount

of staples purchased and the reduction in the contribution of other protein foods such as meat, fresh fish and eggs implies decreased diversity in the diet. This lowers nutrient intake. Moreover the food eaten was monotonous. This tends to affect appetite particularly that of children. Also bulkiness of maize meal would limit the amount of food consumed especially for children who have small stomach. Because of the poor diet and bulky problem, feeding frequency for children becomes more important (UNICEF, 1998) to ensure adequate intake of energy and nutrients.

Feeding frequency

The number of meals taken per day is a useful indicator of food accessibility and nutritional status (Holmboe-Ottessen and Wandel, 1992). Feeding frequencies for most households in Tanzania are generally low, on average people eat twice or three times a day (URT, 1992). Among the factors that can influence the frequency of meals taken by households include availability of food in the household, time required for preparation and eating as well as knowledge on child feeding practices.

The present study has revealed that the majority (84 percent)) of households eat three meals per day. The average feeding frequency of children in Tanzania has also been found to be low, about twice or three times a day (URT, 1992). In this study, on average, the frequency of feeding children under- five years of age was found to be three times a

day. This is lower than the recommended frequency of four or more times per day (UNICEF, 1998).

Reasons for lower feeding frequencies is less time available for food preparation and feeding especially for those women involved in IGAs as well as high cost of the city which tend to strain food budget resulting in inadequate feeding to families as required. A study conducted by CARE-TANZANIA (1999) found out that in Dar es Salaam, lower cash earnings have compelled families to reduce meal frequencies for their children from three to two times a day. This may have contributed to poor nutritional status of children.

The common feeding pattern was found to be as follows: breakfast was served at around 0900 -1000h; lunch was served at around 1400-1500h and the last meal, dinner was served at around 2000-2100h. This shows that the gap between meals is big. Since feeding frequencies were lower than recommended one, a negative effect on child nutrition could be expected.

Intra-household food distribution

Intra-household food distribution indicated that family members ate together out of a common pot. Only few households served adults and children separately but still household members were eating from a common pot. Eating together out of a common

pot could contribute to poor nutritional status of the children. This is because children tend to eat slowly and take small portions at a time compared to adults hence by eating out of a common pot with adults they do not get enough from the meal served. More often this leads to low nutrient intake by children and may escalate to malnutrition.

4.3.7 Coping strategies during food shortages

Households adopt coping strategies to ensure adequate supply of food or at least maintain a required level of consumption. In rural areas different researchers have identified various coping strategies. Among those identified, include shift in production pattern such as multiple cropping and use of drought resistant and short-maturing crops, storage of food and cash as well as exchange of food or labour (Alderman and Sahn, 1989; Thomas and Leatherman, 1990). In urban areas most of households employ coping strategies that reduce consumption levels. These include reduction of meal size (quantity), lowering eating frequencies, eating less preferred food or eating less at each meal (Koda, 1995; CARE-TANZANIA, 1998). As a means to ensure access to food urban households may also engage in IGAs.

In this study participation in IGAs was the major coping strategy reported by women during food shortages. This suggests that women resorted to this strategy because they had no other means of securing food. They worked for food since the value of food they

received for their work was higher than the corresponding cash value.

4.3.8 Factors associated with nutritional status in the study area

The study sought to find out whether underweight was associated with education of the mother, family size, household income (men's income and women's income) and time available for childcare.

Education on part of the mother is expected to increase awareness with respect to dietary needs of children and budgeting. Household income influences nutritional status through its influence on expenditure pattern on food hence feeding frequency of the child. However, the size of the family may affect nutritional status if less food is made available in the household. Participation of women in IGAs may negatively affect the nutritional status of children. This negative effect has been related to insufficient time allocated by women to perform such duties as food preparation, cooking and child feeding. Also IGAs can either improve the children's nutrition as most of the income gained is used to feed the family or it can lead to poor nutrition situation if income is inadequate to purchase enough food for the family (Carlon, 1981).

The regression analysis showed that level of education of the mother had negative effect on nutritional status of children but was not significant at 5 percent level. This suggests

that other factors such as inadequate time for food preparation and child care and inadequate income to purchase appropriate foods for children had more influence on child nutritional status than education per se.

Women's time allocated in IGAs activities also had negative effect on child nutritional status. Some of IGAs such as food vending, local brewing and hair plaiting required more time investment. The fact that there was no significant relationship with child nutritional status means that there was availability of other members in the household who took care of younger children in absence of their mothers. In this study, older children particularly girls helped in carrying out household chores when mothers were away. Findings reported here are in parallel with findings of time allocation studies done by Doan and Popkin, (1993). They found out that although women's workload reduced time they spent in cooking and childcare, no conclusive negative effect of women's time on child's nutritional status could be shown. This was explained as being the result of various compensatory mechanisms employed by the mother, which may have buffered the negative impacts of her time constraints on childcare.

A variable that is considered as a proxy for food availability in the household is women's income. This was found to be positive and significant at 5 percent level. However women's income spent on food (a proxy for women's income) had negative

and significant effect on child nutritional status. This is contrary to the widely held view that women's income is more strongly associated with improvement in children's nutritional status (Guyer, 1980; Tripp, 1982; Pahl, 1983). The study suggests that the proportion of income that was used to purchase food was either not sufficient to purchase enough food or types of food purchased were of low quality in terms of energy and nutrients. This in turn affected the nutritional status of under-fives.

The study has shown that although women bought food from all four groups of nutrients such as carbohydrates, protein, fat, minerals and vitamins, child feeding in many cases was inadequate resulted to inadequate nutritional diet. High cost of living in urban areas provides a limitation in the choices of food. As a result, households end up buying little amount of food that are cheaper and tend to be low in nutrient density barely meeting needed levels of dietary intake (Smallwood *et al.*, 1985). Given the role of income in urban areas, women might have used small proportion of their income for meeting immediate food needs in order to balance competing demands so as to subsist in short and longer terms. Therefore even if food provision for their family remained at the top agenda, income spent by women on food affected the nutritional status of children since concentration in children's food was not given a priority.

`Family size had no significant effect on children nutritional status. This could be due to

a simple reason that with large family size there is sharing of tasks and responsibilities. It was observed that older children particularly girls were able to take care of their siblings. Older children also contributed labour by helping in IGAs. Similarly, the same explanation can be drawn on the lack of significant relationship between time allocated by women in domestic activities and nutritional status. Men's income spent on food (a proxy for men's income) had positive effect on child nutritional status, but not significant.

The practice of eating from the common pot, lack of nutritional knowledge and feeding left over foods might have also contributed to poor nutritional status. In addition, poor environment (as shown in description of the study area) in which these household are located might have had to some extent, contributed to poor nutritional status of children.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

IGAs are major sources of livelihood for most of the households in the study area. The majority of women are involved in IGAs that are small-scale in nature and earn them low income that could be attributed to low or insufficient capital, lack of business education and group mobilization that would otherwise have enhanced their business performance.

Women spend more of their income on food than men, who tend to spend more on non-food items. Therefore women's IGAs earn women income and increases the purchasing power of households in the study area.

The assessment of nutritional status of children indicates that more children in the study area were under-weight (47.6 percent) compared to the national average (28 percent). Women's income was positive and significantly related to nutritional status. However women's income spent on food was significant and negatively related to child nutritional status.

This study has shown that income earned was used relatively to the disadvantage of children's nutrition. Therefore increased access to food did not lead to improved food

consumption for household members.

The reliability of women's income on food accessibility is an indication that women's IGAs have a role to play in improving household food security of the urban poor. IGAs enable women to earn income, which increases household purchasing power and hence, household's access to food. Thus promoting Women's IGAs as a strategy for improving household food security in the study area is important.

5.2 Recommendations

(i) Women's IGAs

Despite the fact that involvement of women in IGAs has enabled women to earn their own income, women are faced with a number of limitations that make them earn low income. Policies formulated should recogniSe the diversity and heterogeneity of women's IGAs and must seek to enable each type of IGAs to earn more income. This can be achieved through assurance of adequate access of women to credit facilities on reasonable terms for acquisition of necessary inputs. Alternatively, the Government and Aid agencies should try to reach women so that they could have direct access to the information about any available assistance.

(ii) Women's time allocation

In order to maximize the potential effect of women's IGAs on household food security assistance should be provided by Government and Non government organizations to increase women productivity without sacrificing their additional time and household

welfare. In order to facilitate their involvement in IGAs and speeding up household chores the feasibility of providing appropriate technologies such as improved stoves, better food and water containers, handcarts and childcare centres need to be explored.

(iii) Household welfare

IGAs increases women's purchasing power and hence accessibility to food in the household. Therefore women should be encouraged to participate more in IGAs. Government should provide substantial efforts in nutritional education for women in order to improve diets among the undernourished households. The purpose of this is to reach enough level of nutritional knowledge among women so that more of their income is spent on food and that food consumed by different members be more suited to their needs.

REFERENCES

Alderman, H. and Sahn, D. E. (1989) Understanding Seasonality of Employment, Wages, and Income .*In: Nutrition, Household Food Security and Agricultural Change. With Special Focus on Gender Issues. (Edited by: Holmboe-Ottesen, G. and Wandel, M.)* pp 145.

Alderman H. and Garcia M. (1994) Food Security and Health Security: Explaining the Level of Nutritional Status in Pakistan. *Economic Development and Cultural Change*. 42, 485-517.

Ako, M. R. (1995) Household Resource Management and Patriarchal Relationship: The Impact of Seaweed Farming in Paje Village, Zanzibar. In: *Gender, Family and Households in Tanzania. (Edited by Omari, C. K. and Creighton, C.)* Avebury, Ashgate Publishing Limited. Gower House, Croft Road, Aldeshot, Hants GU11 3HR England. pp 155-177.

Ashimogo, G. (1995) Peasant Grain Storage and Marketing in Tanzania. A case Study of Maize in Sumbawanga District. Verlag Dr. Korster. Berlin. pp 223

Bleiberg, F., Brun, T. A., Goihman, S. and Gouba, E. (1980) Duration of Activities and Energy Expenditure of Female Farmers in Dry and Rainy Seasons in Upper Volter. *British Journal of Nutrition* 43: 71-82.

Braun, von J. and Kennedy, E. (1986) Commercialization of Subsistence Agriculture: Income and Nutrition Effects in Developing Countries. In: *Nutrition, Household Food Security and Agricultural Change. With Special Focus on Gender Issues. (Edited by Holmboe-Ottesen, G. and Wandel, M.)* University

of Oslo. pp 145.

Braun von, J. and Pandy-Lorch, J. (1991a) Income Sources of Malnourished People in Rural Areas: Micro-level Information and Policy Implications. Working Paper on Commercialization of Agriculture and Nutrition. No.5. Washington, D.C.: International Food Policy Research Institute. pp 6.

Braun von, J., Bouis, H., Kumar, S. and Pandya-Lorch (1992) Improving Food Security of the Poor: Concept, Policy, and Programs. International Food Policy Institute. Washington, D.C. pp 1-43.

Caplan, P. (1995) 'In My Office We Don't Have Closing Hours': Gendered Household Relations in a Swahili Village in Northern Mafia Island. In: *Gender, Family and Households in Tanzania. (Edited by Omari, C. K. and Creighton, C.)* Avebury, Ashgate Publishing Limited. Gower House, Croft Road, Aldeshot, Hants GU11 3HR England. pp 118-138.

Campbell, J. (1995) Conceptualizing Gender Relations and The Household in Urban Tanzania. In: *Gender, Family and Household in Tanzania (Edited by Creighton, C. and Omari, C. K. E.)* Avebury Ashgate Publishing Limited. Gower House, Croft Road, ALdershot Hants GU11 3HR, England. pp 327.

CARE International in Tanzania (1998) Dar es Salaam Urban Livelihood Security Assessment. pp 9.

Carlon, A. S. (1981) Sex Disparities in Distribution of Food within Rural Households. *Food and Nutrition* 7(1) 3-12.

Cherop S. (1996) Maternal Occupation, Food Consumption and Nutritional Status of

Their Children in Msambweni, Kwale District. Msc. Thesis, University of Nairobi/ANP, Kenya.

Davies, S. (1993) Versatile Livelihoods Strategic Adaptation to Food Security in The Malian Sahel. *Forum for Development Studies*. No. 2. pp 174.

Dearden, P. J and Cassidy, E. M. (1990) Food Security. An ODA view, *IDS Bulletin* 21. (3). pp 11.

De Waal, A. (1989) Famine that kills. In: *Household Food Security; Concepts, Indicators Measurements: A Technical Review. (Edited by Maxwell, S. and Frankenberger, T.)* UNICEF/IFAD: New York/Rome. pp 274.

Devereux, S. (1993) 'Goals Before Ploughs; Dilemma of Household Response Sequencing During Food Shortages'. *IDS Bulletin*. 24. (4) pp 11.

Doan, R. M. and Popkin, B. M. (1993) Women's Work and Infant Care in the Phiollipines. *Social Science and Medicine* 36(3): 2297-304.

Dulansey, M. and Austin, J. (1991) Small Scale Enterprise and Women. In: *Gender Roles in Developing Projects. (Edited by Overholt, G.; Anderson, B. M.; Cloud, K. and Austin, J. E.)* Kumarian Press Inc. United State of America. Pp 326.

FAO (1982b) Integrating Nutrition into Agriculture and Rural Development Projects: *A Manual. Nutrition and Agriculture*. No. 1. FAO, Rome. pp 71-79.

Francois, P. (1982) The Effect of Household size and Income on the Probability of Energy Inadequacy. *Food and Nutrition*. 8 (1): 32–39.

Gibson, S. R. (1990) Principles of Nutritional Assessment. Oxford University Press. New York. pp 247-261.

Gomez, F. Galvan, R. R. Cravioto, M. J. Chavez, R. Vazquez, L. (1956) Mortality in Second and Third Degree Malnutrition. *Journal of Tropical Paediatrics* 2: 77-83.

Guyer, G. (1980) Households Budgets and Women's Incomes. The Importance of Women's Involvement in Economic Activities in the Improvement of Children Nutrition and Health. *Food and Nutrition Bulletin*, Vol. 10 no3 pp 33-41.

Holmboe-Ottesen, G. and Wandel, M. (1992) Nutrition, Household Food Security and Agricultural Change. With Special Focus on Gender Issues. Doctor of Philosophy Dissertation. Institute for Nutrition Research and Centre for Development and Environment. University of Oslo. pp 145.

Holmboe-Ottessen, G.; Oshaug, A. and Wandel, M. (1989) Nutrition Evaluation of an Agricultural Development Project in Southern Sri Lanka. *Food and Nutrition Bulletin* 91(3): 47-56.

Hubbard, M. (1995) Improving Food Security. A Guide for Rural Development Manager. Intermediate Technology Publications. pp 63.

Immink, M. D. C. and Alarcon, J. A. (1991) Household Food Security, Nutrition and Crop Diversification among Smallholder Farmers in the Highlands of Guatemala. *Ecology and Nutrition* 25: 287-305.

Jonna, P.E. and Otsuke K. (1999) Green Revolution, Human Capital and Off-Farm Employment: Changing Sources of Income among Farm Households in Centro Luzon, 1966-1994. *Economic Development and Cultural Change*. 47(3) 47-59.

Katona-apte, J. (1983) A Socio cultural Perspective of the Significance of Sex Roles in

Agriculture. In: *Nutrition Impact of Agricultural Project. Papers and Proceedings of a Workshop held by the UNACC. Sub Committee on Nutrition.* Geneva: UN-ACC SCN, c/o Who. pp 28-43.

Kavishe, F. P. (1993) Nutrition-Relevant Actions in Tanzania. Tanzania Food and Nutrition Centre, 20th Anniversary1973-1993. Monograph Series No.1. UN ACC/SCN Country Case Study. A Case Study for the XV Congress of the International Union of the Nutritional Sciences, 26 September – 1 October. Adelaide. pp 209.

Kavishe, F. P.; Ngonyani, M.; Mabula, S. and Ljungquist et al., (1989). The Role of Malaria in Childhood and Nutrition Anaemia as seen in Temeke Hospital, Dar es Salaam. TFNC Report No. 977.

Kennedy, E. (1989) The Effects of Sugarcane Production on Food Security, Health and Nutrition in Kenya: A Longitudinal Analysis. Research Report 78: International Food Policy Research Institute, Washington, DC. pp 43-52.

Keregero, M. M. (1989) Family and Society. Lecture Notes. Food Science and Technology Department. Sokoine University of Agriculture. Morogoro, Tanzania.

Kimbi, L. C. (1989) Women Entrepreneurs in Dar es Salaam. A Profile Study, MBA Research Project, University of Dar es Salaam. pp 79.

Kinabo, J. (1996) Policies Related to Food Security and Issues in Tanzania with Gender Perspective. A paper presented at the NGO workshop on World Food Summit, Dar es Salaam, 9, July 1996. pp 8.

Koda, B. (1995) The Economic Organization of the Household in Contemporary Tanzania. In: *Gender, Family and Households in Tanzania. (Edited byOmari, C. K. and Creighton, C.)* Avebury, Ashgate Publishing Limited. Gower House, Croft Road, Aldeshot, Hants GU11 3HR England. pp 139-155.

Kumar, S. K. (1977) effect of Seasonal Food Shortage on Agriculture Production in Zambia. *World Development* 16(9): 1051-1063.

Lazaro, A. E. (1996) Women in Household Economy. The Case of Agricultural Plantations in Morogoro Region. A Thesis submitted in fulfilment for the degree of doctor of philosophy of Sokoine University of Agriculture, Morogoro, Tanzania. pp 179.

Lorri, W. S. M. and Kavishe, F. P. (1990) Household Food Security and Relation to Nutrition. In: *Proceedings of National Workshop on Household Food Security.* Dar es Salaam. 11-13 June. TFNC Report No. 1277. pp 7-34.

Lund, R. (1979) Prosperity through Mahaweli: Women's Living Conditions in a Settlement Area. Master Thesis. Institute for Geography, University of Beargen, Norway. pp 97.

Lyimo, G. J. (1989) Relationship between Mothers' Involvement in Income Generating Activities and Child Nutrition Status in Morogoro Township. A Special Project Report Submitted to the Department of Food Science and Technology in Partial Fulfilment of Science Degree in Home Economics and Human Nutrition of Sokoine University of Agriculture, Morogoro, Tanzania. pp 70.

Lorri, W. S. M. (1990) Household Food Security and Relation to Nutrition. In:

Proceedings of National Workshop on Food Security. 11-13 June. Dar es Salaam, Tanzania. TFNC Report. No 1277, pp 3-6

Lugeye, S. C. and Bashagi, W. (1991) A Study of Women's Income Generating Activities in Iringa Region in Tanzania. In: *Proceedings of a National Workshop on. (Edited by Mattee, A. Z., Lupanga, I. J. Mollel, N. M. and Lugeye, S. C.).* 25- 27 November, Dodoma Tanzania, pp 81-88.

Malambugi, B. G. E. (1991) 'The Mobilization of Financial Resources for Women's Projects: An Assessment of Current Approach'. MBA Research Project, University of Dar es Salaam. pp 113.

Maliyamkono, T.L. and Bagachwa, M.S.D. (1990) The Second Economy in Tanzania. ESAUR, Dar es Salaam. pp 97.

Mandara, E. G. (1998) Assessment of Factors Influencing Women Participation In Off Farm Income Generating Activities. Thesis (MSc.) Sokoine University of Agriculture. Morogoro. Tanzania. pp 101.

Mascarenhas, O. (1983) Implication of Constraints in Women's Control and Utilization of Resources for the Food and Nutritional Status of their Families. Paper Present at the TFNC/UNICEF Workshop on 'Hunger and Society', Dar es Salaam, Tanzania.

Maxwell, S. and Smith, M. (1992) Household Food Security. A Conceptual Review. *In: Household Food Security; Concepts, Indicators Measurements: A Technical Review. (Edited by Maxwell, S. and Frankenberger, T.)* UNICEF/IFAD: New York/Rome. pp 274.

Mbise, E. R. (1992) A Performance Study of Women-Owned Tie and Dye Businesses in Dar es Salaam. MBA Research Project. University of Dar es Salaam. pp 122.

Mbughuni, P. (1994) Gender and Poverty Alleviation in Tanzania. In: *Gender, Family and Households in Tanzania. (Edited by Omari, C. K. and Creighton, C.)* Avebury, Ashgate Publishing Limited. Gower House, Croft Road, Aldeshot, Hants GU11 3HR England. pp 139-155.

Meghji, Z. and Virji, P. (1987) ' A Study of CAREDIT Facilities to Women in Tanzania'. Paper Presented at a Workshop on Women's Employment Creation/Income Generation, held by UNICEF in Dar es Salaam, Tanzania. pp 8.

Minde, J. I. (1988) Small-Scale Rural Enterprise Development in Tanzania: Current Status and Research Needs. In: *Household and National Food Security in Africa. (Edited by Mudimu, G. and Bernsten, H.)*. CTM Litho. pp 345-354.

Mwadime, N. K. R. (1996) Non-Farm Employment in Rural Kenya: Micro Mechanisms Influencing Food and Nutrition of Farming Households. Doctoral Thesis, Department of Human Nutrition. Wageningen Agricultural University, Wageningen, Netherlands. pp 144.

Nkoma, A. G. (1982) 'Beer Brewing as an Income Generating Activity in Utengule-Usangu, Mbeya, Region'. Tanzania.

Norusis, M. J and SPSS Inc. (1995) Data Analysis for Spss/PC+TM Version 4.1. Chicago Illinois.

Pahl, J. (1983) "The Allocation of Money within Marriage", ***Sociological Review.***

32:237-26.

Payne, P.R. (1990) Themes in Food Security: Measuring Malnutrition. *IDS Bulletin* 21(3): 14-30.

Popkin, B. and Solon, F. (1976) Income. Time, The Working Mother and Child Nutrition. *Journal of Tropical Pediatrics and Environmental Child Health* 22: 66-156.

Quisumbing, R. A., Brown, R. L., Feldstein, S. H., Haddad, L. and Pena, C. (1995) Women: The Key to Food Security. Food Policy Report. The International Food Policy Research Institute. Washington, DC. PP 1 - 22

Rukuni, M. and Bernsten, R.H (1988) Southern Africa: Food Security Policy Options. University of Zimbabwe/Michigan State University. Food Security Project. Department of Agricultural Economics and Extension, Harare. pp 17-33

Rutashobya, L. (1990) Women in Business. In: *Gender, Family and Household in Tanzania. (Edited by Creighton, C. and Omari, C. K.)* Avebury Ashgate Publishing Limited. Gower House, Croft Road, Aldershot Hants GU11 3HR, England. pp 327.

Shah, C. H. (1983) Food Preference, Poverty and Nutrition Gap. *Economics Development and Cultural Change* 32: 121-148.

Sen, A. (1991) Poverty and Famines: An Essay on Entitlement and Deprivation. Oxford. Oxford University press. pp 7.

Skjonsberg, E. (1989) Change in an African Village. In: *Nutrition, Household Food Security and Agricultural Change. With Special Focus on Gender Issues.*

(Edited by Holmboe-Ottesen, G. and Wandel, M.) University of Oslo. pp 145.

Smallwood, D. M. and Blaylock. J.M. (1985) Analysis of Food Stamp Participation and Food Expenditures. *Western Journal of Agricultural Economics* 10(1): 41-54.

Sterwart, F. (1991) 'The Many Faces of Adjustment'. *World Development.* No. 19. pp 1847-64.

Smith, V., Kilasa, K., Srauras, J.Whelan, W. and Bingen, L. (1981) Development and Food Consumption Pattern in Rural Sierra Leone. *Food and Nutrition Bulletin.* 7(2):24-32

Temu, E. M. (1988) Social-Cultural Aspects of Women in the Economy: Income Generating Activities in Tanzania. Paper Presented to ILO/SDPR Workshop. Dar es Salaam, Tanzania. pp 11.

Thomas, R. B. and Leatherman, T. L. (1990) Household Coping Strategies and Contradiction in Response to Seasonal Food Shortage. *European Journal of Clinical Nutrition* 44: 103-111.

Trenchard, E. (1987) Rural Women's Work in Sub-Saharan Africa and the Implications for Nutrition. In: *Geography and Gender in the Third World. (Edited by Momsen, J. H. and Townsend, J.).* State University of New York Press. Albany, New York. pp 367-369.

Tripp, R. (1981) Farmers and Traders: Some Economic Determinants of Nutrition Status in Northern Ghana. *Food and Nutrition.* 8 (2):1-8 .

Tripp, A. M. (1989) Women and Changing Urban Household Economy in Tanzania.

Journal of Modern African Studies. 27 (4): 601 - 623.

Tripp, A. M. (1992) The Impact of Crisis and Economic Reform on Women in Urban Tanzania. In: *Unequal Burden: Economic Crisis, Persistent Poverty and Women's Work. (Edited by: Benera, L. and Feldman, S.) West View Press, Boulder, Colorado*. pp 46-87.

Tripp, R. (1994) The Status of the Economy of Female Micro-Entrepreneurs in Tanzania. In: *Proceedings of the Workshop on Female Micro-Entrepreneurs*. 7-10 March, 1994, Mwanga, Kilimanjaro, Tanzania. pp 212.

UNICEF (1998) The State of the World Children. Oxford University press. pp 26-29.

United Republic of Tanzania (URT), (1982) Structural Adjustment for Tanzania. Ministry of Planning and Economic Affairs. Dar es Salaam, Tanzania.

United Republic of Tanzania (URT), (1984a) Tanzania National Food Strategy. Vol. 1. Dar es Salaam, Tanzania.

United Republic of Tanzania (URT) (1988) Population Census National Profile. Bureau of Statistics, President's Office, Planning Commission, Dar es Salaam, Tanzania. pp 20 - 23.

United Republic of Tanzania (URT) (1992) Tanzania: The National Informal Sector (TNIS). Dar es Salaam. Government Printers. pp 1 - 4.

URT/Planning Commission (1989) Agricultural Sample Survey of Tanzania Mainland, 1986/87, Vol II: Main Report. Bureau of Statistics.

URT/Planning Commission (1995) Population Historical Data. Dar es Salaam City Commission.

Wandel, M. and Holmboe-Ottessen, G. (1989) Women as Nutrition Mediators: A Case Study from Sri-Lanka. *Ecology of Food and Nutrition*, 21: 117 -139.

Wandel, M. and Holmboe-Ottesen, G. (1992) Women's Work in Agriculture and Child Nutrition in Tanzania. *Journal of Tropical Paediatrics*, 38(5): 1-4.

Watts, M. (1983) Silence Violence, Food, Famines and Peasantry in Northern Nigeria. In: *Measuring Household Food Security. (Edited by Nyborg, I. and Haug, R.) Forum for Development Studies.* No.1. pp 174.

Winnikoff, B., Latham, C. M., Solimono, G., Elliot, B., Cerf, B. H., Laukaran, H. V., van Esterik,P., Post, E. J., Smith, A. R., Lee, W. L., Agunda, O. K., Kekovole, J., Kigondu, J., Kogi, W., Njogu, W. and Okello, M. (1986) The Infant Feeding Study: Nairobi Site Report. Report prepared for the US Agency for International Development Office of Nutrition. USAID, Washington, DC. pp 6

Wood, C. H., Vaughan, P, J. and Glanville, H. (1981) Community Health. African Medical and Research Foundation. Nairobi, Kenya. pp 23-26.

World Bank (1986) Poverty and Hunger: Issues and Options for Food Security in Development Countries. World Bank: Washington D.C.

World Bank (1988) The Challenge of Hunger in Africa. World Bank: Washington D.C.

World Bank, (1996) The World Bank Participation Source Book. IBDR-World Bank, Washington, D.C.

World Health Organization (1983) Measuring Change in Nutritional Status. Guidelines for assessing the Nutritional Impact of Supplementary Feeding Programmes for Vulnerable Groups. WHO, Geneva. pp. 101.

World Health Organization (1987) Global Nutrition Status: Anthropometric Indicators. World Health Organization, Nutrition, Unit, Division of Family Health, Geneva.

World Bank, (1996) World Development Report 1996. Oxford University.

Yambi, O., Kavishe, F. P. and Lorri, W. S. (1990) The Nature the Food Security Problem in Mainland Tanzania . In: *FAO, 1990: The Nature of Food Security in Mainland Tanzania Assessment and Issues Paper*. pp 13 - 25.

Yonah, B. (Hon) (1999) Budget Speech for the Fiscal Year 1999/2000. Dar es Salaam: Business Times LTD. pp 3

Youssef, N. and Rogers, L. B. (1988) The Importance of Women's Involvement in Economic Activities in the Improvement of Child Nutrition and Health. *Food and Nutrition Bulletin,* Vol 10 no 3. pp 33-41.

APPENDICES

Appendix 1: INFORMAL SURVEY CHECKLIST

Question/Topic	Data collection methods
Household characteristics	Women and men in the study area
Information on Women's IGAs (Type, size, location, and resource into business)	Informal interviews with women and officials
Evaluation of importance for subsistence	Women and men
Source of capital/credit	
Who received loan, type of loans	Women
Condition for loan, interest, and repayment schedule	
Prices of food in the market	
Price fluctuations	Secondary data
Taxation policies	
Government incentives:	
What encourages continuing doing IGAs	Women
Food security situation:	
Information on food security in an historical sense	older people in the area
Occurrence and coping strategies of food insecurity	Women and men

Income and expenditure	Food	Non-food	Personal needs
	.....	.....	.....

Cash from IGAS

Salary (if any)

Assets: house, jewels, land, others

Appendix 2: WOMENS' QUESTIONNAIRE

SOKOINE UNIVERSITY OF AGRICULTURE FACULTY AGRICULTURE DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

TITLE:THE ROLE OF WOMEN'S INCOME GENERATING ACTIVITIES IN HOUSEHOLD FOOD SECURITY IN THE URBAN POOR: THE CASE OF TEMEKE DISTRICT IN DAR ES SALAAM REGION

NAME OF DIVISION.....

NAME OF WARD.....

NAME OF INTERVIEWER.....

DATE OF INTERVIEW.....

SECTION A: GENERAL INFORMATION

A1 (a) Name of respondent.....

(b) code.....

A2 Marital status

01 Never married

02 Married

03 Widowed

04 Separated

05 Divorced

A3 Age of respondent.....

A4 Respondent status

01 Head of the family

02 Not head of the family

A5 Respondent level of formal education

01 Post secondary

02 Secondary

03 Primary education

04 Adult literacy class

05 None

A6 How many people live in your household?

Years	Above 15yrs	5-15yrs	Below 5yrs
Female	.....	.....	.....
Male	.....	.....	.....

A7 What is the major source of income for your household?

01 Salary/wage

02 Farming

03 Income generating activities

04 Others (Specify)

A8 Who is major income earner in the household?

01 Myself

02 Husband

03 Others (Specify)

SECTION B: WOMEN'S INCOME GENERATING ACTIVITIES

TYPE OF INCOME GENERATING ACTIVITIES

B1 What IGAs do you do? (List all IGAs done)

01 Sellng food (mama ntilie)

02 Petty trading

03 Vegetable growing

04 Tie and Dye

05 Road cleaning

06 poultry keeping

07 Handcraft

08 Others (specify)

(b) Do you operate as individual or as a Group? (Give reasons)

(c) How long have you been engaged in mentioned IGAs?

B2 For each IGAs that you do, kindly tell me who the owner is?

B3 Why did you decide to engage in IGAs?.....

CHARACTERISTICS OF INCOME GENERATING ACTIVITIES

CAPITAL

B4 (a) What was the major source of your initial capital

01 Husband

02 Own saving

03 Government Institution

04 Non Government Organisation

05 Others (specify)

(b) If you started your IGAs from your own saving, what was the source of your saving?

1 Prior employment

02 Friends/relatives

03 Sale of assets

04 Inheritance

05 Others (specify)

(c) What was the initial capital (Tshs) used to start your IGAs

LOCATION AND STRUCTURE

B5 (a) Where do you operate your IGAs?

01 Residential premise

02 Non residential premise

(b) Do you operate your IGAs in a permanent location?

01 Yes

02 No

(c) If yes, why have you located your IGAs at the premise where it now is?

(d) Do you own the piece of land?

01 Yes

02 No

(e) If no, do you pay rent for the premise?

01 Yes

02 No

(f) If you pay rent how much is it. Tshs per week/month/year

(g) If you are not operating your IGAs in a permanent location why do you

move from location to location

(h) Do you operate your IGAs in a permanent structure?

01 Yes

02 No

(I) If yes, what is the structure of your place?

01 Permanent cemented structure

02 Permanent wooden structure

03 Permanent mud structure

04 Open air

05 Make shift

06 Others (specify)

TRAINING

B6 (a) Have you received any training on operating your IGA(s)?

01 Yes

02 No

(b) If yes, please tell me where you obtained the training and for how long?.....

(c) If no, how did you acquire the skills of managing or operating your IGAs?

LABOUR

B7 Who else in your household participate in IGA(s)?

Name	Relation	Work type
01		
02		

B8 (a) Employment status in the business

01 Unpaid family work

02 Paid employees

03 Others (Specify)

(b) Are there times when you face labour shortages in your IGA(s)?

01 Yes

02 No

(c) If yes, do you get a helping hand from someone else?

01 yes (Mention who)

02 No

RESOURSE INTO BUSINESS

B9 Where do you get the items sold in your IGA(s)?

01 I make myself

02 Purchase from somewhere (specify)

03 My cultivation plot

(b) If you do purchase from somewhere, how much (Tshs) average. do you spend on buying the items for your IGA(s) each day?

IGA	Amount spent (Tshs)
.....	.....
.....	.....

What was your objectives in doing IGAs (in order of priority).....

SECTION C: INCOME GENERATED FROM IGAs

C1 What is the average weekly generated income from IGA(s)?

01 Less than 500 Tshs

02 between 501 - 1,000 Tshs

03 between 1,001 -2,000 Tshs

04 between 2,001- 3,000 Tshs

05 between 3,001- 4,000 Tshs

06 between 4,001- 5,000 Tshs

07 Above 5,000 Tshs

C2 (a) Is there reliable market for sale of your products?

01 Yes

02 No

(b) If yes, who are your major customers?

C3 Which IGA earns you more income? And how much (Tshs) per month?.....

C4 (a) Do you control the income earned from your IGA(s)?

01 Yes

02 No

(b) If no, who controls it and why?.....

C5 Do you keep records of your earnings?

01 Yes

02 No

(Explain why?)

C6 What are the average earnings (in Tshs) last month from your IGA(s)?.....

C7 How much do you earn from these activities per day?

Activity	Income/day (Tshs)
01Food vending	

02 Cultivation

03 Sale of charcoal

04 Local brewing

05 Plaiting

06 Handcraft

07 Genge

08 Kiosk

09 Others (specify)

(a) Does the income generated cover your household basic need?

01 Yes

02 No

(b) If yes, what are the basic needs covered by income from IGAs?

(c) If no, what are your strategies to manage a living for your household?

SECTION D: HOUSEHOLD INCOME EXPENDITURE ON FOOD

D1 Please tell me what do you understand by the term Food Security?

01 To have enough food for the family everyday

02 To have enough food at the same time fulfil other basic needs

03 others (specify)

(b) From your understanding of food security what can you say about the category of your household?

01 Food secure

02 Variably food secure

03 Food insecure

D3 (a) What kind of food do you purchase daily?

01 Energy foods e.g. Maize, Cassava, Rice and Potatoes

02 Protein rich foods e.g. Meat, Fish, Beans, Eggs

03 Fat e.g. cooking oil, coconut extract, groundnuts

04 Vitamins e.g. Vegetables and Fruits

05 All the above

(b) Who does the purchase of food in your household?

01 Myself

02 Husband

03 Others (specify)

(c) Do you purchase food on daily or weekly basis?

D4 (a) Are the prices of food affordable?

01 Yes

02 No

(b) If no, why?

01 Expensive

02 Fluctuation of food prices

03 Others (specify)

D5 What is the estimated expenditure of the household income per week?

Expenditure item	Amount spent (Tshs)/week	
	Female	Male
Paying house rent	.....	.....
school fees	.....	.....
Loan	.....	.....
Taxes	.....	.....
Clothes (expenditure on special occasions).....		.....
Kerosene	.....	.....
Electricity	.....	.....
Food	.....	.....
Medicine	.....	.....
Soap	.....	.....
Water	.....	.....
Savings	.....	.....
Bicycle	.....	.....
Radio	.....	.....

D6 (a) Does your house income enables you to meet all the basic needs?

01 Yes

02 No

(b) If yes, how much do you use to purchase food?

(c) If no, what are other strategies do you do to ensure that these needs are met?

D7 (a) Do you always have enough food for your family?

01 Yes

02 No

(b) If yes, on average how many meals do you have per day?

(c) Please specify the contents of your household meal

01 Breakfast.....

02 Lunch.....

03 Dinner.....

04 Others (specify)

(d) If no, what are the main reasons for food shortage in your household? (Explain)

(e) What are the main groups in the family that face the problem during food shortages?

01 Women

02 Men

03 Children

04 Children under five years of age

(f) What do you do when there is food shortage in your household?

(g) How do you prevent food shortages in your household?

D8 (a) Do young children (3 –5 years of age) have same meals as adults?

01 Yes

02 No

(b) If yes, what do you consider as status food (describe contents)

(c) How often does your family eat the status food?

01 Very often

02 Rarely

03 Others (specify)

(d) Is there any change of what you eat nowadays as compared to what you used to eat say five years ago?

01 Yes

02 No

(e) If yes, what are the changes? (Explain)

(f) What do you think is the reason (explain)

(g) If no, how many times are young children fed per day?

(h) Please specify content of your children's meals

D9 Who usually prepares meals for the household?

Meals	Person preparing
Breakfast	.....

Lunch .....

Dinner .....

D10 Food distribution

01 Common pot

02 Individual plate

03 Others (specify)

D11 What are your opinion on the effect of IGAs on food security?

D12 What do you consider to be important means for improving food security in general?

SECTION E: NUTRITION STATUS

E 1 How many children do you have?

E 2 Please fill information below for each children

Name of child Age weight for those below 5 years

1)

2)

3)

E 3 Who takes care of young children (under 5 years) when you are working?

01 Older children

02 Housemaid/boy

03 Nursery school

04 Relative

05 Others (specify)

E 4 Labour involvement in household activities

Task	Hours
01 Food preparation and cooking	
02 House cleaning	
03 Child caring	
04 Others (specify)	

E5 Labour involvement in IGAs

Task	Hours
01Food vending	
02 Cultivation	
03 Sale of charcoal	
04 Local brewing	
05 Plaiting	
06 Handcraft	

07 Genge

08 Kiosk

09 Others (specify)

E6 Time of operation of IGAs

01 Day (specify hours from... to...)

02 Night (specify hours from...to...)

Appendix 3: Meal Type and Feeding Frequency Questionnaire

Food Item	No/Day	No/week	No/Month
Maize	……..	……..	……
Cassava			
Rice/Wheat/Potatoes			
Pulses (Beans, peas. Cowpeas)			
Vegetable			
Fruits			
Milk			
Sugar			
Egg			
Oil			
Coconut			
Butter/Jam			