

**THE ROLE OF AGRICULTURAL MARKET INTERMEDIARIES ON  
POVERTY REDUCTION IN NJOMBE**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT FOR THE  
REQUIREMENTS OF THE MASTER DEGREE OF BUSINESS  
ADMINISTRATION IN MARKETING OF THE OPEN UNIVERSITY OF  
TANZANIA**

**2014**

**CERTIFICATION**

I hereby certify that I have read this thesis prepared under my supervision and recommend for acceptance by the Open University of Tanzania a thesis entitled: **The Role of Agricultural Market Intermediaries on Poverty Reduction in Njombe**, in partial fulfillment for the award of the degree of Master of Business Administration in Marketing of the Open University of Tanzania.

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Signature

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Date

## **DEDICATION**

I dedicate this thesis to my family for nursing me with affections and love and their dedicated partnership in the completion of this work.

## ACKNOWLEDGEMENT

I am highly indebted to express my grateful and sincere thanks to our Almighty God for His kindness and love to me, that He guided and protected me all the way through my journey to accomplish this study. This indebtedness is also extended to my lovely Family, my late wife, Esther Mazengo and our children Robert and Eunice they all together contributed much in my determination to reach my goal during the study. They always actively provided me with a moral, material and social balance to make sure that I attain my goal in this study.

Many thanks are also expressed to my Employer Mr. Hubertus A. Cardoso who at the beginning of my study was the Managing Director for Allure Flowers Limited as he deserves much thanks as he supported me a lot both in terms of monetary and time, and he always encouraged me a lot during the time of hardship with the goal to see that I successfully achieve my goal of study.

Many appreciations are also extended to my research Supervisor Rev. Dr. Kimilike Peter Lechion of the Open University of Tanzania, for his encouragement during research report compilation. The list of people that am indebted to thank them is not limited to the aforementioned, however the space here is very limited, but It could be unfair to close this section without thanking Mr. Tonya, the Njombe Regional Director at Open University of Tanzania for his encouragement, and not to be forgotten are the village leaders, various officers both in the government and private firms in the study area and the interviewees for their support during the exercise of data collection.

## ABSTRACT

Pokhrel and Thapa, (2007) and Nkolimwa, (2010) highlighted that marketing intermediaries in developing countries, including Tanzania, often exploit farmers in rural areas and that farmers frequently receive too low prices for their products. This may contribute to the persistent poverty in rural areas of Tanzania and potentially delay Tanzanian economic growth. Targets to reduce poverty in the rural areas of Tanzania by the year 2015 by 5 to 7% set by the Tanzanian Government may therefore not be feasible (Policy forum, 2010). This study not only demonstrates the exploitation of Irish potato farmers in the Tanzanian Njombe region but also that fair trading in the region is hindered by the lack of the implementation of governmental policies enforcing it. About 155 households purposively sampled from four villages were involved in the current survey; similarly, other market stakeholders were sampled in the chain from Njombe Township and the large markets in Dar-es-Salaam. Collected data were analyzed through Excel spreadsheet as well as SPSS 20.0 program. The results revealed Market intermediaries to have a poverty gap index equals to zero, while farmers in surveyed villages had a positive range in poverty gap with a mean of about 166.05. This result implies that, the higher the range in poverty gap index from zero the higher the range below the poverty line. The implementation of the Agricultural marketing policy (AMP) had remained in an immotile state. The general implication here is that, market intermediaries involved in agricultural marketing as well as the lack of implementation of government AMP have a negative contribution towards poverty alleviation in rural areas.

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### LIST OF ABBREVIATIONS

ADMARC	Agriculture Development and Marketing Corporation
AMP	Agricultural Marketing Policy
ASLMs	Agricultural Sector Lead Ministries
CIAT	Centro Internacional de Agricultural Tropical
ESRF	Economic and Social Research Foundation
FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
ICT	Information Communication Technology
IFAD	International Fund for Agricultural Development
IFD	International Fund for Development
IMF	International Monetary Fund
LLL	Linked Local Learning
MAC	Ministry of Agriculture and Cooperatives
MAFC	Ministry of Agriculture, Food and Cooperatives
MITM	Ministry of Industry, Trade and Marketing
MLDF	Ministry of Livestock Development and Fisheries
MoAK	Ministry of Agriculture, Kenya
MWI	Ministry of Water and Irrigation
MUVI	Swahili acronym meaning, “Entrepreneurial Union at Village level” (Muungano wa Ujasiriamali Vijijini).
NBS	National Bureau of Statistics
NSGRP	National Strategy for Growth and Reduction of Poverty
PMO	Prime Minister’s Office



RALG	Regional Administration and Local Government
REPOA	Research on Poverty Alleviation
RFSP	Rural Financial Services Programme
SI	International System
SSA	Sub-Saharan Africa
SPSS	Statistical Procedure for Social sciences
TNBC	Tanzania National Business Council
TSH	Tanzania Shilling
URT	United Republic of Tanzania
WWI	World War One

## **CHAPTER ONE**

### **1.0 INTRODUCTION**

#### **1.1 background of the study**

The Tanzanian Government for many decades now has been making concerted efforts to ensure that the agricultural sector the backbone of the national economy becomes more business-oriented and beneficial to farmers (Anon, 2007). At the same time, poverty on the rural population has been observed to be increasing (Policyforum, 2010; Kamndaya, 2009).

Therefore it is this chapter that intends to explain the context of the study in which its background is described, the way the problem has developed, parties involved, and to whom the problem is. The chapter also goes on defining the research questions which are stated both in their general and specific sense. Research objectives are clearly stated well as general objectives and as specific objectives. The final section but one explains about the relevance of research. The last section summarizes the key concepts of the chapter.

#### **1.2 The Context of the Study**

In the last years, Tanzania's agricultural sector has not adequately been fulfilling its role as an engine of economic growth for poverty reduction and food security. The National Bureau of Statistics (NBS) shows the absence of any noticeable poverty reduction. For instance, in 2000/1 the total number of people living below the poverty line increased by 1.3 million (Policy forum, 2010). Considering that the overall growth target for halving abject poverty by 2015 is in the five to seven percent range, this performance falls short of the needed growth

([www.indexmundi.com/tanzania/population-...+povertyline](http://www.indexmundi.com/tanzania/population-...+povertyline), 10/5/2010). On top of these, marketing intermediaries in developing countries including Tanzania have been viewed as exploiters or parasites (Nkolimwa, 2010; [www.doi:10.1016/j.agsy.2006.08.004](http://www.doi:10.1016/j.agsy.2006.08.004), 14/9/2007). This emanates from the situation where farmers in the rural community have been receiving very low prices on their agricultural products regardless of the increased production costs ([www.isglink.org](http://www.isglink.org), 15/9/2007). Because farmers in rural areas solely depend on agriculture it is obvious that, it is agricultural products that have to earn them an income that will play part in combating their high level of poverty, and hence further the country economy.

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This study intended to find out whether the parasitic view by farmers on markets intermediaries was a fact or not. This was made possible by implementing a detailed survey about the role played by marketing intermediaries in poverty alleviation that had engulfed Irish potato farmers in Njombe. Irish potato is a horticultural crop which in the area of study, for many years now it had played both roles, as a major food crop for most of the households and as well as a cash crop to act as a main source of income. The production of Irish potato involved higher production costs that included expensive inputs like commercial fertilizers, insecticides and fungicides.

When it came to time of marketing, the crop received very low prices, which in general did not even pay back the production costs, the main reason being very poor marketing systems in which it is considered that intermediaries are playing an unfair game. For instance, buyers of this crop apart from the low prices they offered to farmers, they also did not have proper scale for measuring the yield. Therefore

instead of buying Irish potato in terms of kilogram, they buy the produce in bags with weight ranging between 150-200kg. This had developed as a problem due to the fact that most of the farmers had very low level of literacy, and also they had almost no way to communicate to the market, hence they were always uninformed about the market trends. On the other side, the government in the district had not put in place or rather not implemented the legal matters on the policy for marketing agricultural produce to ensure fair trade.

Thus, the parasitic view against marketing Intermediaries in Njombe District was almost similar to mandarin (a species of orange) farmers in a mountain district of Nepal, where, Pokhrel and Thapa (2007) found out that marketing intermediaries were harassing and cheating farmers in different ways taking advantage of their weak bargaining power and poor economic condition. However, on the other hand a report on the survey done by IFAD (2003) in three countries in Africa i.e. Kenya, Zambia and Mozambique, revealed a quite different picture where new commercial relations had been found to exist between smallholder farmers and market intermediaries. Though limited information was available, market intermediaries had been found to provide some farming credits to farmers. Otherwise, the same report (IFAD-2003) still insisted that more information were needed on the operations and functions of such new commercial relations being established between farmers and market intermediaries.

Farmers cultivating Irish potato in Njombe District had been working very hard to make sure that they earned themselves Income that would play part in raising household economy. Regardless of higher production costs, market intermediaries

when they went to seduce farmers at time of harvesting they offered very low prices, these prices did not help in raising the respective farmers' income, but rather added more wealth on the intermediaries' side. This was considered to be the reason for the persistent poverty in rural areas. Therefore, this study established the extent at which farmers were exploited and at the same time found out how much, the intermediaries enriched themselves on farmers' shoulders. The study also established how much did the lack of business skill contribute on rural farmers when it came to Irish potato marketing.

It was due to the fact that, intermediaries knew for sure that farmers had very little knowledge about the market trend, considering the great distance between rural areas and Dar- es-salaam where the major market was (Eskola,2005). However, apart from market intermediaries who played an exploitative role that represented a major problem which hindered farmers efforts to fight poverty, lack of education on both parties was another problem, as one party (intermediaries) took an advantage of the other (farmers), though, intermediaries if were well educated especially about fair business ethics they could have ended up playing a fair play in marketing agricultural products (Eskola, 2005).

### **1.3 Research Problem Statement**

Policy forum (2010) explains the increasing trend of poverty on the rural population. On one hand this is due to having no incentives to entice farmers to increase production. The stagnation in production of strategic crops boils down to a lack of incentive and or trust in producer associations to enable farmers to collectively bargain and market their goods (Kamndaya, 2009). On the other hand, there are the

intermediaries who appear to have taken advantage of the preceding situation. Hence, this study examined the role played by agricultural marketing Intermediaries in poverty alleviation combating the rural poor Tanzania farmers.

#### **1.4 Research Objectives**

The general objective of the research was to establish a way in which market intermediaries contributed to farmers' efforts in alleviation of income- poverty. The research specifically defined the objectives as:

- (i) To identify marketing intermediaries involved in marketing Irish potato crop.
- (ii) To state the government policy on agricultural produce marketing and the ways in which it was implemented.
- (iii) To find out whether there had been enough market education that empowered farmers to have acted as equal trading partners.

In order for the research to reach the objectives, were developed some questions to be answered on the process. The questions included:

##### **1.4.1 General Questions**

How did market Intermediaries affect farmer's efforts on income- poverty reduction at Njombe?

##### **1.4.2 Specific Questions**

- i. Who were market intermediaries for Irish potato marketing?
- ii. What was the government policy about agricultural marketing and how was it implemented to ensure fair trade?

- iii. How was market education being delivered to rural farmers?

### **1.5 Conceptual Framework**

Internationally poverty is defined with a base on an International Poverty line, which is one-dollar income per day per capita (Zeller, 2004). The National poverty line is expressed in local currency (Zeller, 2004). The poverty line for Tanzania is Tsh 13,998/= per person per 28 days or approximately Tsh 500/= per person per day (Policy Forum, 2010). In Tanzania people are considered poor when their consumption is less than the poverty line (Policy forum 2010).

Countrywide, poverty reduction is sought to be taking place at a very small pace and in real sense the reduction is taking place only in urban areas (URT2010). In the rural areas where agriculture is the main stay, poverty is even worse (Policy forum, 2010). Agricultural growth and poverty reduction is inseparable in the rural areas as the former is the driver for the population to be freed of poverty (URT 2010).

Unreliable markets, unfair and uncompetitive farm gate prices are among factors said to retard growth (URT, 2010). Thus, well functioning markets are important in generating growth and expanding opportunities for poor people (Tschumi and Hagan, 2008). Popularly, market systems are a composition of three main sets of functions, these; Core, Rules and Supporting functions (Tschumi and Hagan, 2008). It's the core function that links the supply and demand parts of the market. Similarly, market intermediaries are located in this set (Core function). This study is sought to estimate the poverty level in Njombe district relating the situation to the role played by agricultural market intermediaries.

Irish potato farmers in Njombe district being the suppliers depend highly on the core function of the market system to foster their economic growth. It is therefore safe to assume that the role played by market intermediaries in agricultural market system has a significant impact on the farmers' efforts against poverty. All Irish potato farmers face similar situations in their agricultural activities, from growing to selling of their crop. They obtain inputs at higher prices, no agricultural credits during the growing period, and they sell most of their crop through market intermediaries who dictate the farm gate prices. Similarly, it is also safe to assume that market intermediaries maximize their business profit on the farmers' shoulders. Eventually, the market intermediaries obtain better income from the potato sales than farmers.

It is also of an assumption that, market intermediaries have all the bargaining power in their hands because the government is not playing her supervisory and regulatory roles. The business regulations and rules are not enforced as a result all market players use both fair and unfair practices in the process, which in turn provide disincentives to farmers (Kamndaya, 2009). Therefore, it is postulated that the role of agricultural market intermediaries in Irish potato market system has a correlation to poverty reduction among farmers in the villages. If such correlation can be established together with government roles, then goals to reduce poverty on farmers can be achieved.

### **1.6 Significance of the Research**

The IMF argued that in the last two decades the Tanzania economy went through a period of successful transition in which economic liberalization and institutional reform led to a recovery of GDP growth to more than 7% per year since 2000,



however, it concluded that economic liberalization had failed to reduce income poverty for most people (Policy forum, 2010). Also, it had been revealed in IFAD's report of December 2003 that there was still a need for more information about relationships that existed between market intermediaries and farmers. Alternatively, Eskola (2005) in her working paper for ESRF concluded that, to empower producers to act as equal trading partners with the buyers, the process of unionization needed to be homegrown from farmers' movement rather than imposing from above.

Therefore, it was the researcher's opinion that this study would contribute more to the knowledge of the problem and the extent to which the efforts to solve it had been attained. But also, the researcher felt that, interviewees by then are presumed to have been awakened and had an added competence in tackling the problem that faced them. In addition, the findings provide to policy makers some clues on whether agriculture and cooperative development policy had exhausted to their capacity the agricultural produce market needs for rural farmers and the existence of needs to revise them.

## CHAPTER TWO

### 2.0 LITERATURE REVIEW

#### 2.1 Theoretical Literature Review

In his study about the trends in wholesaling, Kotler (2000) observed that wholesalers being intermediaries are always by passed by manufacturers or else are being replaced with better ones if they are inefficient. Major complaints by manufacturers against wholesalers are:

- (i) They do not aggressively promote the manufacturers' product line, acting more like order takers;
- (ii) They do not carry enough inventories and therefore fail to fill customers' orders fast enough;
- (iii) They do not supply the manufacturer with up-to-date market, customer, and competitive information;
- (iv) They do not attract high-caliber managers and bring down their own costs;
- (v) They charge too much for their services.

Kotler, (2000) further explains that as the thriving wholesaling industry moves into the next century, it faces considerable challenges such as;

- (i) Fierce resistance to price increases and winnowing out of suppliers based on cost and quality.
- (ii) The trend towards vertical integration, in which manufacturers try to control or own their intermediaries, is still strong.

Thus, from Kotler, (2000) it is clear that manufacturers' recognition on the intermediaries' weakness emerged after they had noted some decrease in their sales

as well as profits. The same was relevant to this study as for many decades farmers have been working hard to increase the quantity produced. But still they were poor as there were complains that they were always underpaid at the time of selling their crops. Hence it gives the reason behind looking into the role-played by intermediaries.

Also, the government of Burma revealed another similar case. Okamoto (2004) had studied the situation where the Burmese government was acting as an intermediary. But since 1987-1988 the government underwent some agricultural marketing reform. The preceding marketing reform had components such as the abolition of the compulsory delivery system and the admission of private trader in agricultural marketing. Therefore it is clear that the improvement of legumes production and the increase in volume produced was a very positive result of policy reform which farmers were very happy with.

The present study about Irish potato producers in Njombe district have much to learn, that is why had the agricultural marketing policy reform not helped farmers in Tanzania even though, it had also undergone such trade liberalization? There was probably some way of implementation needed to be exploited from Myanmar (Burma) example! As the study by Okamoto (2004) summarized the remarkable features of the impact of the reform that;

- i. It was successful in creating employment and income for the majority of the rural population. All of the participants-producers, marketing intermediaries and land laborers gained benefits; in other words, it was a win-win situation as there were no losers in the process and it contributed to raising the general

economic level of the particular area.

- ii. The income generated by production of legumes was not high enough to allow the poorest segment of rural population to escape from persistent poverty. At the same time, the improvement of the income distribution was ambiguous.

Otherwise the study by Okamoto (2004) still lacked some evidences of how the Myanmar government supervised the implementation of the policies that resulted in agricultural marketing policy reform. Therefore in this research some exploration was made to find out in detail the mechanism that was used in Tanzania to supervise agricultural marketing systems. Alternatively, Thornsby et al (2006) described wholesale and distribution businesses as intermediate stage operations that provide services related to product sale. They used an inclusive term “intermediary” to describe agents who

- (i) take title to product, such as wholesale merchants, distributors, import/export merchants, and sales branches;
- (ii) charge a fee but do not take title, such as brokers and commission merchants;
- (iii) Provide services such as sorting, packaging, and labeling.

Analyzing fresh produce intermediaries in the away-from-home food markets, Thornsby et al (2007) found that successful intermediaries were able to adapt and adopt new trade practices to serve different fresh produce customers. The evolving trade practices include increased emphasis on product characteristics, chain management, and commitment-based relationships such as strategic alliances. In their study Thornsby et al (2007) stress that understanding evolving trade practices

and their enabling technologies was fundamental for intermediaries who want to gain or maintain market share, or to re-position them. They also commend the possibility of regulation to require ability to trace a product to its origin, which has established traceability as a channel requirement, where intermediaries often supply these assurances through third party certification that all parties in the chain, including themselves, are following the rules.

Thornsbury et al (2007) insist that intermediaries might meet special requests applicable to packaging and organic/ environmentally friendly products in multiple ways, including coordination with their suppliers to make product or service adjustments. Finally Thornsbury signified that intermediaries in the away-from-home market had played a fair role both on their customers and suppliers. She evidenced this by quoting results from a 2005 survey done by Martinez and Thornsbury (2006) which indicated that 31% of fresh produce intermediaries had maintained commercial relationships with their primary suppliers for 6 -10 years, while 12% had worked with their primary suppliers more than 20 years. And that, over one-third of survey respondents indicated having worked with the same customers for more than six years.

Otherwise, in its magazine, marketing fresh cut roses 2000, [www.pathfastpublishing.net](http://www.pathfastpublishing.net) provides as a general rule that, the shorter the distribution chain the better the return to the producer will be and the fresher the blooms at the far end. Or else the magazine puts it clear that, the simplest form of distribution was for local growers to sell through farmers markets direct to the retail customer or to the retailer. For instance, it was clear that when roses can be sent

direct to the consuming countries rather than via the Netherlands they missed out a number of links in the chain, this generally did cost about 15% – 20%, where as if the product passed through the auction in Holland there was an addition of other costs at the auction which were between 6% - 8% (www.pathfastpublishing.net, 9/3/2006).

### **2.1.1 Marketing Concepts**

Marketing is a general term that is used to describe all steps that lead to final sales. It is the process of planning and executing pricing, promotion and distribution to satisfy individual and organizational needs. Marketing consist making decision on the four P's;

- i. Product
- ii. Place/Distribution
- iii. Promotion
- iv. Pricing (Kotler, 2000).

There are a variety of participants in the Marketing process such as middlemen and organizations that specialize in performing various marketing functions; Wholesalers normally sell to retailers, however, there are other wholesalers and industrial users, but do not sell significant amounts to ultimate consumers. There are two main kinds of wholesalers:

- a) Agent wholesalers can act as representatives of their clients, can provide access to market territories, and they charge fees for these services.
- b) Merchant Wholesalers buy and sell for their own gain based on their knowledge on the market situation.

**Brokers** - act only as representatives for their clients. Brokers' incomes are from fees and commissions and are payments of their knowledge of market outlets and contacts. Brokers do not assume physical control of the product. They follow directions of each principal and have less discretionally power in price negotiation.

**Commission people** - usually control physical handling of the product, moving it from one location to another. They arrange for the terms of sale and collect money from the buyer for the sale of the products. They deduct predetermined fees and send the balance to the processor.

**Speculative Middlemen** - take title to the products. They buy products based on their knowledge of possibility of selling at higher price. Their goal is to make a profit from price difference in various locations.

**Retailers** - buy from many processors and wholesalers to develop a product mix that will attract consumers to their stores. They rely on consistent quality and availability of products. They buy and sell for their own gain.

**Consumers** - have specific wants and needs. Their incomes vary from high to middle or low. They have many different traditions and tastes, ranging from ethnic to generic products. Consumers are final buyers and users of the products (Kotler, 2000).

### **2.1.2 Basic Income Poverty Concepts**

The first step in measuring poverty is defining an indicator of welfare such as income or consumption per capita. **Income** is defined in principle as *Consumption* +

*Change in net worth* (Haig 1921, Simons 1938, quoted in Haughton and Khandker, 2009,). In this sense, then, the term **Poverty** is defined as a situation at which the level of an individual's welfare is inadequate and socially unacceptable (Sanfo and Gerald, 2012). The definition also includes income and non-income human development attributes (URT, 2000) in which income poverty is characterized to be;

- i) Largely a rural phenomenon.
- ii) Concentrated in subsistence agriculture.
- iii) Also increasing and widespread in urban areas.
- iv) In large household, youth and the old.
- v) Not necessarily in female-headed households than male-headed, however, women are generally poorer than men.

**Country poverty profile** is that which sets out the major facts on poverty, and then examines the pattern of poverty to see how it varies by geography, by community characteristics, and by household characteristics. A poverty profile is a comprehensive poverty comparison, showing how poverty varies across subgroups of society (Haughton and Khandker, 2009).

**Poverty Determinants** refers to the causes or at least correlates of poverty, which according to Haughton and Khandker they include;

- i. Regional level characteristics (Geography)
  - ii. Community level characteristics (e.g., villages)
  - iii. Household or individual level characteristics (e.g., education level)
- (Haughton & Khandiker, 2009).



**Poverty Line/ Poverty Threshold** implies the minimum threshold above which an individual can be identified as “not poor” and is calculated from a weighted basket of goods valued by the price system (Sanfo and Gerald, 2012). For instance, Poverty level at household in Tanzania is determined by the poverty line of Tsh 13,998/=per person per 28 days or approximately Tsh 500/= per person per day (Policy Forum 2010).

**Poverty Gap (Gi)** is the poverty line ( $z$ ) less actual income ( $y$ ) for poor individuals; the gap is considered to be zero for everyone else (Haughton and Khandker, 2009).

**Poverty Gap Index (P1)** is a moderately popular measure of poverty, which adds up the extent to which individuals on average fall below the poverty line, and expresses it as a percentage of the poverty line(Haughton and Khandker, 2009).

### **2.1.3 Marketing Intermediaries Role Concepts**

Intermediaries try to conciliate the interests and expectations of buyers and providers by means of adopting notions of distributional justice that can be accepted by both parties. Generally the role of intermediaries is to bring about economic fairness (Kotler, 2000). The intermediary often acts as a purchasing agent for his customers and only secondarily as a selling agent for his suppliers. Unless given incentive to do so, intermediaries will not maintain separate sales records by brands sold. Information that could be used in product development, pricing, packaging, or promotion planning is buried in nonstandard records and sometime purposely secreted from suppliers (Kotler 2000).

Kotler (2000) further finds out that intermediaries can aim for a relationship based on cooperation, partnership, or distribution programming. On the other hand, most producers see the main challenge as gaining intermediaries' cooperation. Hence, producers must periodically evaluate intermediaries' performance against such standards as sales-quota attainment, average inventory levels, customer delivery time, treatment of damaged and lost goods, and cooperation in promotional and training programs.

#### **2.1.4 Method for Poverty Determination**

Haughton and Khandker (2009) explain three steps in poverty measurement as; i) defining an indicator of welfare: the welfarist approach seeks to measure household utility, which in turn is usually assumed to be approximated by household consumption expenditure or household income. Given enough income the household is assumed to know best how to deploy these resources. When divided by the number of household members, this gives a per capita measure of consumption expenditure or income.

- ii) Establishing a minimum acceptable standard of that indicator to separate the poor from the non-poor (poverty line): the minimum threshold above which an individual can be identified as not poor.
- iii) Generating a summary statistic to aggregate the information from the distribution of this welfare relative to poverty line: the actual level of the welfare is computed from household survey data that include information on the same. From there a per capita household consumption is constructed.

## 2.2 Empirical Literature Review

Between 1961 and 1970 Tanzania had the highest agricultural production rate (mainly domestic food), which increased to about 7% per year according to the UN figures. According to Lele (1984) by the end of W.W.I, peasant agriculture sector began to commercialize. However, in the year 1974/75 the Tanzanian agriculture went on crisis, there was a marked fall in agricultural production. According to Nyerere (founder of the Tanzanian nation) the failure of agriculture resulted from a problem of its implementation.

However, Lele (1984) suggests that external influence such as the drought of 1973/74, the breakup of the East African Community in 1977, the war with neighboring Uganda 1979, two oil crises of 1973 and 1979 had contributed to the failure. Also I find that somehow in collaboration to Nyerere's assertion above Lele argued necessarily blaming the failure of government's own economic policy. For instance the move towards a socialist state the Tanzanian government was against the use of market incentive system as means to excite agriculture production; it eliminated the possibility to use market competition as stimulus of economic growth.

Again the state established marketing boards to control the buying and selling of agriculture products. This system permitted the government to set up purchase prices, which could not reflect the real market price with an intention of the government to offer the urban people with low cost food. The members of the marketing board were chosen by the government not by farmers; hence those officials represented the interest of the government not farmers. Therefore, the government acted as a sole market intermediary between farmers and consumers, it

did monopolize the buying of crops national wide, fixed the prices below real market price, and agricultural producers could not negotiate the price with the government officials (Lele, 1984).

Consistently the government policy through the marketing boards imposed taxations on agriculture sector under two forms, the explicit and implicit one. Explicit taxes were the legitimized taxes, (i.e. export duties, local taxes, development taxes and marketing and processing tax). Implicit taxes included overvaluation and inflation tax. Those are more hidden taxes that diminish farmers' revenue further (Lele, 1984). However, the government being a single player in the Tanzanian economy it needed a huge bureaucracy to execute its policy. Therefore, for the purpose of controlling rural farmers, cooperatives were established, and these later were replaced by public sector monopoly of agricultural parastatals (Lele 1984 as quoted by Empereur 2000). According to Lofchie (1988) as quoted by Empereur (2000), these organizations have exhibited pervasive patterns of inefficiency. They were mismanaged and corrupted, they absorbed a large part of profit and as a result they contributed significantly to the downward pressure on producer prices (URT, 1983). This observation was also supported by the working paper for ESRF presented by Eskola (2005), who found out huge differences in the turnover gained by traders at different levels.

For instance, Eskola (2005) noted that, large scale traders at regional market selling agricultural products earn from 30,000 to 100,000 Tsh, per day, while the medium-scale traders have a turnover of around 20,000 Tsh, per day and the small-scale trader who is located in rural areas has a turnover of up to 5,000 Tsh per day, and

finally the poor farmer who sells his or her agricultural produce to small-scale trader will only earn a margin of between 600- 700 Tsh per day. These noted differences in turnover in any way were a result of large number of intermediaries involved in the supply chain.

Eskola (2005) investigating the supply chain of agricultural products in Tanzania found that there were many middlemen required to facilitate the process of getting the produce from rural areas into the hands of the final consumer in Dar-es-Salaam. For instance she identified about seven groups of intermediaries who are in between the producer and the final consumer, these include; local trader, trader from Dar-es-Salaam, broker for transporter, the transporter, broker in Dar-es-Salaam, wholesaler in Dar-es-Salaam and retailer in Dar-es-Salaam.

At every point in this chain there was cost of trading however, for a long time now there had existed claims that, the attitude of being more profit oriented by the market intermediaries had resulted into unfair play on the side of producers. Emma (2007) supported this by quoting the Tanzanian minister for agriculture (Wasira, S). The said Minister was explaining in Mtwara, the efforts by the government to make sure that cashew nut producers were getting fair price and avoid exploitation by the buyers, that a new system of buying the product should be put in action, that was the use of coupons, in his view the system have worked well in countries such as Mali, Ghana, Niger and Zambia.

The exploitation of farmers by intermediaries seem to have been noted everywhere in the country, as Samwel (2009) quoted the president of Tanzania (HE, Kikwete, J.)

who in his opening speech at the sixth conference of the Tanzania National Business Council (TNBC) criticized business people especially those specializing in buying agricultural produce that they were only profit oriented at the expense of farmers and that their operations disregarded the interests of farmers. The negligence of farmers' interests by business people was also supported by Eskola (2005) who found that in the process of marketing cashew nuts in Mtwara for instance, the long supply chains are very costly in terms of time and money and that the marketing margins varies with each transaction.

For instance, Eskola (2005) established that, in percentage wise the marketing margins charged by different traders goes up to a total of 76%, leaving only 24% of the market price for the farmer, that is, the primary collectors enjoys a margin of about 15%, the secondary collectors about 6%, transporters 10%, brokers in Dar-es-Salaam 9%, wholesalers 8% and retailers in Dar about 36%. Examining these varying margins it was no doubt that farmers were the only ones being exploited by buyers in the process of marketing their crops.

On the other hand, the government of Tanzania had eradication of poverty as its main goal since 1961, and currently the government had adopted since 1999 a development vision 2025 whereby it had identified five key sectors among those was agriculture. The sector, which employs about 80% of the country's population, had mainly eyed to be struggling, and among reasons for it to struggle was the problem in the distribution system. Samwel (2009) quotes the senior researcher with REPOA, Dr Damian Gabagambi that; subsidized fertilizers ended up in the shops of input suppliers and being sold at the market price, after being re-bagged. He further

recommends that provision of subsidized fertilizers should go hand in hand with efficient agricultural marketing system.

Also, an internet website supporting teachers provided on its article that, the distribution element was where Intermediaries (or third parties) played a great role in bringing product to market ([www.tutor2u.net](http://www.tutor2u.net), 17/9/2007). Hence they tried to forge a “distribution channel” which could be defined as “all the organizations through which a product must pass between its point of production and consumption”. In the article it was explained clearly that, business gave the job of selling the products to Intermediaries to gain efficiency of distribution costs.

The main concept being that, Intermediaries were specialists in selling. They had the contacts, experience and scale of operation, which meant that greater sales can be achieved than if the producing business tried to run a sales operation itself. However, this study was developed because Irish potato in the District did not sense the gain in distribution costs efficiency as farmers did receive very low prices from intermediaries. A view that also agreed with what Pokhrel and Thapa (2007) found in their study about mandarin producers in a mountain district of Nepal. It is in the preceding sense farmers claimed that marketing intermediaries were just mere parasites.

In Pokhrel and Thapa (2007) study information was collected from all major stakeholders such as farmers, collectors and commission agents, and the relative position of farmers in terms of their gains was analyzed by employing three criteria viz, Price of mandarin, marketing margin, and Income-distribution. To ensure fair

trade, Pokhrel and Thapa (2006) had a theory that policy to institutionalize and strengthen the group-marketing system could address such inherent problems. However, in Tanzania there have existed similar policies where marketing boards were formed for most cash crops, which also led to the establishment of co-operative societies at farmers' level to help in marketing their crops, still could not help to improve economic level of these farmers (Policy forum, 2010).

However, IFD, a specialized agency of the United Nations dedicated to eradicating rural poverty in developing countries, had developed a theory after some survey, that, good communication was vital to small farmers who needed better access to markets and reliable information about prices, product quality and market conditions (Gillman, 2005). The concept of communication networks among farmers and to the rest of the world also went hand in hand with what Yarney (2005) found when studying about Information intermediaries for agricultural livelihoods in Ghana.

On one hand, Yarney (2005) found that, the creative use of ICTs could impact positively on the residents of communities whose livelihood was at a subsistence level, with seasonal inflows of cash at harvest times, oscillating with periods of high debt and lack of cash. He also identified two information needs of the farming community that ICTs might have an important role in filling. The first was the commonly expressed need for market price information. The second was that agricultural development depends on retaining more value-added processes in the locality, through increased processing of raw materials by local people. While on the information parameter, Cadilhon et al (2004) researched business to business relationships and found that sharing more information had been directly linked to



increased levels of satisfactions about the relationship. For instance in both traditional and modern supply chains, information sharing about prices, quality requirements and plans for promotion, led to better coordination and joint planning between stakeholders.

On the other hand, Cadilhon et al (2004) linked information sharing to increased levels of trust among supply chain stakeholders. Furthermore, being transparent on the different grades of product and their respective value had a direct impact on increasing profits for both farmers and collectors (Cadilhon et al, 2004). This was an area that the present study was focused, to investigate whether intermediaries played their role of being informative to farmers about what the market needed, and what farmers could have done to meet market demands in terms of crop variety, quantity and quality. Also to find out whether extension services in terms of marketing systems were adequate to the rural society, hence their role in poverty alleviation. Therefore, the study took into account variables such as; size of land farmed; yield per area; price per given volume of yield paid at farm gate; crop variety; crop quality; marketing system and distribution channel; proportion of income earned by intermediaries as compared to farmers and finally the consumer aspect.

### **2.2.1 Review of Empirical Role of Marketing Intermediaries Study from Developed and Developing Countries**

In the list of roles played by intermediaries was the provision of seasonal input credit as it was clear that in most African Countries purchased seasonal input were rarely affordable by small farmers on a “cash” basis, therefore, had tended to be accompanied by programs of seasonal credit. This was evidenced in the study done

by Dorward, et al (1998) in the Sub-Saharan Africa (SSA). They found that prior to marketing liberalization, in Sub-Saharan Africa, much seasonal credit was provided in kind to smallholders through parastatals marketing boards or government controlled cooperatives. Dorward et al (1998) further cited an organization such as ADMARC in Malawi, which showed that their basic structure was conducive to impressive loan disbursement and repayment performance, as they were able to use their Monopoly power in the crop output marketing to recover loans made to smallholders.

Cotton companies in northern Ghana offered smallholder producers a package comprising ploughing services, seeds, fertilizer, chemical application, extension advice and output purchase. In the early years of liberalization in the sector (1985-1994) the companies operated a so-called “free input system”, under which farmers paid for all these services through an adjustment to the price of cottonseed received at harvest. Under that system, collection of the seed Cotton price by the Companies provided an effective disincentive to output “diversion”, where by farmers who had received services from one company sold their seed Cotton to a competitor (Dorward et al, 1998). From that example this research drew some clues to assess whether such measures had ever been applied to Irish potato farmers in Njombe.

However, the Ghana example by Dorward et al did not show clearly how much was the share benefited by markets intermediaries compared to the share that farmers obtained. The example showed that the role-played by market traders in providing seasonal input credits was exploitative, and that was the reason for a decline in Cotton production (Dorward et al, 1998). Either, the role had been recognized in the

report by IFAD (2003), where in Kenya the relatively strong rural finance sector provided various types of services to the rural population. Also, Warren (2007) reported the habit of Ugandan government of providing selective lending which was much to the rich private investors to the extent that it had been the source of widened gap between the so called active poor and the chronically poor.

### **2.2.2 Review of Empirical Role of Marketing Intermediaries Studies From Tanzania**

In the National Strategy for Growth and Reduction of Poverty I (NSGRP I) report (URT 2005) it was elaborated that the prevalence of income poverty was still high in Tanzania. Similarly, the NSGRP II records an insignificant reduction in income poverty in the country, from 36% in 2001 to only 34% in 2007 and even claims the situation to worsen in rural areas (URT, 2010). NBS in 2001 and 2007 as quoted in Policy forum (2010) also indicates the decline in fraction of the poor people in rural areas to be very little, only from 38.6% in 2001 to 37.4% in 2007. Agriculture was pointed out to be the lead sector, accounted for 45% of GDP and about 60% of export earnings in the past 3 years (URT 2005).

Leave alone its contribution to GDP the sector had registered an average annual growth rates of 4.8 % as compared to 3.1% of 1998 to 2000. However it is noted that the constraints to rural growth were largely related to those in the agricultural sector. Among the long list of constraints made in the NSGRP I report are the administrative fiats that often constrain marketing of agricultural output (URT 2005). Hence, the need for the investigation on the role of agricultural market intermediaries on income poverty reduction in Tanzania.

In Tanzania intermediaries have tried to play their role of assisting farmers in boosting their profits through increase in agricultural output by providing input credits. For instance, Doward et al (2004) studied cashew nut production in Tanzania, where loan recovery was aided by a regulation that all sales of cashew nuts were made at registered buying points, making it easy for intermediaries to be on hand to collect repayment. However, in the study it was clear that farmers still were not satisfied with the prices they receive at harvesting period; as a result farmers took their nuts to a buying point in a neighboring village in search of higher price.

Therefore it was enough here to mention that, the intermediaries by any means were the beneficiaries and farmers being losers, and subsequently being gainers of persistent poverty! Irish potato crop was a sole cash as well as food crop for rural people in the study area, just as cashew in Mtwara. Therefore, the cashew study was also relevant to this study as it provided some lights on which a focus was made when identifying the intermediaries and their roles they played against poverty combating farmers in Njombe.

Farmers in Mtwara like those in Njombe it appears are often victims of the marketplace, selling their products at low price and buying inputs high price because they had little choice of where and with whom to do so and most importantly at what price. They seem to have no way to control transportation, storage and processing links in the marketing chain to consumers with cash and from policy makers who made the rules. However, according to IFAD (2003), a survey made in seven districts of Tanzania from August 2005 to March 2006, indicated an increase of

income from fifty percent to in some cases, as much as three hundred percent. This resulted from farmers being engaged in Linked Local Learning project, but also other market intermediaries like Dodoma transport and Mohamed Enterprises have increased their profits. Linked Local Learning (LLL) project linked small farmers, local service providers, government officials and market chain intermediaries through innovative ways to gain access to Information Communication and Technology (ICT).

IFAD (2003) goes further in showing the First Mile Project experience that, developing commodity chains is much more knowledge intensive and communication intensive, or connectivity demanding. Therefore the study by IFAD's First Mile Project was relevant to this research as it added the very and most intermediaries, that is, the Info-media intermediaries in order to help rural farmers get out of poverty through efficient agricultural activities. However, the study by IFAD's First Mile project had a weakness in that it did not show how the policy on Information Communication Technology in Tanzania might have helped these info-intermediaries to reach the remote rural poor farmers. However, apart from these info-intermediaries, history shows that before independence there were cooperatives that were formed from the initiatives of the members and government had the role of providing information, sensitization, education and training, inspection and supervision (MAC, 1997).

In its policy for cooperatives the government is strategically geared to

- (i) transform farmers from subsistence farming to commercial farming through application of recommended farming practices and access to market

- information,
- (ii) enhance farmers income through processing of produce to obtain added value on product and introduction of quantity regimes,
  - (iii) establish a sister society at every agricultural market society for saving mobilization, and credit delivery to farmer members and to the agricultural society to finance the marketing operations and etc (MAC, 1997).

Hence, looking at these strategies there is no argument that the agricultural marketing system is among the impediments against poverty alleviation on rural farmers in Tanzania.

## CHAPTER THREE

### 3.0 RESEARCH METHODOLOGY

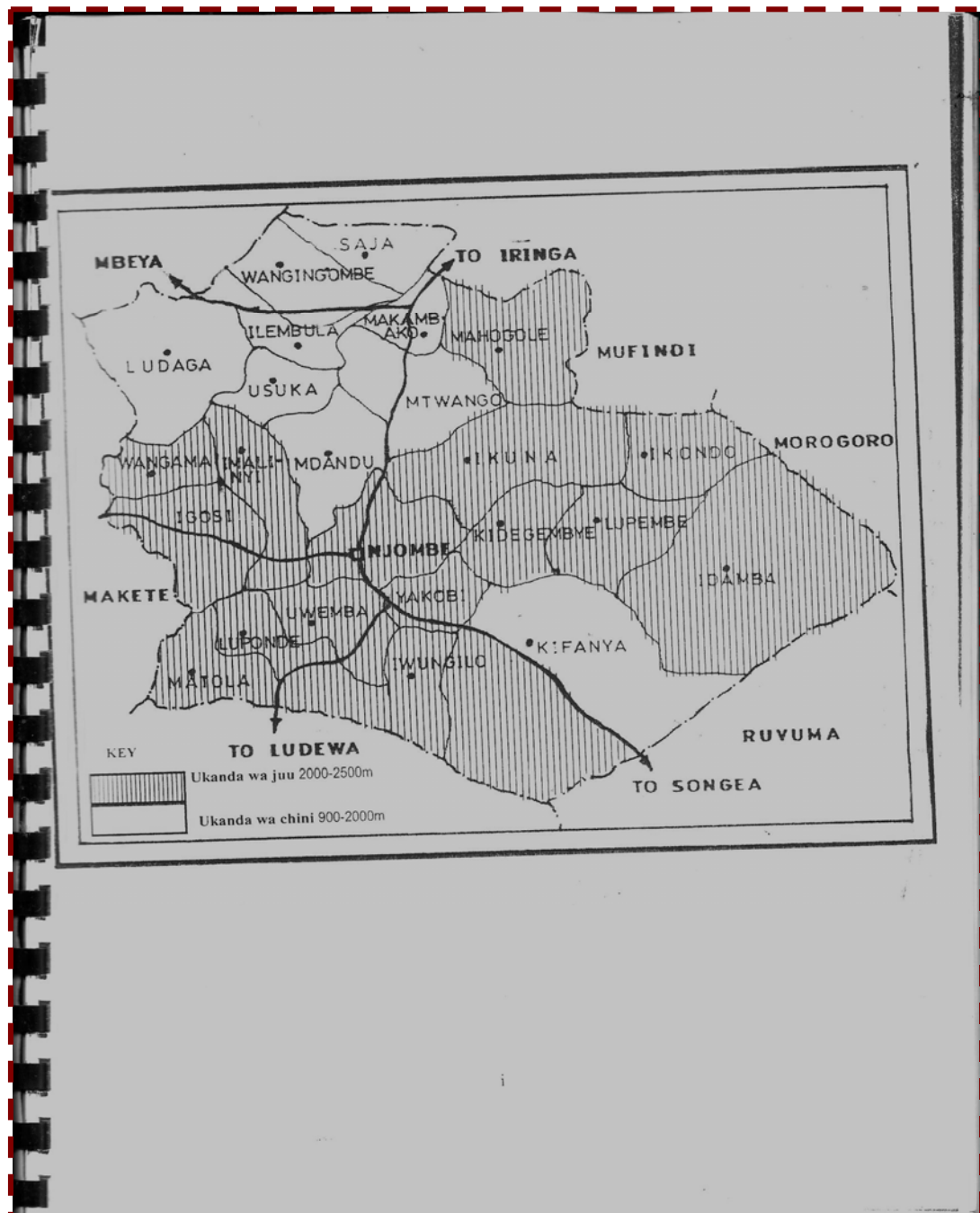
#### 3.1 The study area

##### 3.1.1 Geographical location



**Figure 3.1: The Map of Tanzania with Njombe District Spotted in Red Margin**

The largest part of Njombe District is the Njombe High Plateau with altitudes reaching 2,000 – 2,400 meters above sea level that covers 10,668 sq. km. of which 7,680 sq. km. (72%) are suitable for farming. The district is as well located at latitudes 8°8 to 9°8 south of Equator and Longitudes between 33°5 and 35°8.



**Figure 3.2: The map of Njombe Showing Wards Borders**

Administratively, Njombe District is divided into Njombe Town Council and Njombe District Council. The villages in this study are located within the Njombe Town Council. Njombe Town Council borders Njombe District Council on the Northern part, Ruvuma region on the Southern Eastern part, Ludewa District in the



South and Makete District in the South Western part. This study was carried out at Itulike and Mgodechi villages of Njombe Town Ward in Njombe Town Division and Makowo and Mamongolo villages of Matola Ward in Igominyi Division.

### 3.1.2 Climatic, Vegetation and Soil

The variation of topography in the area also contributes to diversity in climate ranging from mild hot to humid with temperature ranging between 14 – 25°C. The district has one prolonged rain season starting November to early May. It receives an average rainfall of 1,500 mm. per year. Planted trees, natural forest as well as grasslands also cover the area. The soil is characterized by being volcanic with the pH ranging from 4.6 – 5.5.

### 3.1.3 Population

At the end of the year 2006 the District population stood at 467,106 of whom 219,940(47%) were males and 247,166(53%) were females. Population in the District grows at an average rate of 2.1% per annum. At the end of the year 2008, the population in the study villages was Makowo 2,762(1,353 Male, 1,408 Female), Mamongolo 1,233(604 Male, 629 Female), Itulike 1,260(617 male, 643 female) and Mgodechi 1,941(951 male, 990 female).

**Table 3.1 Population Size in the Study Villages**

No	Village Name	Males	Females	Total
1	Makowo	1,353	1,408	2,762
2	Mamongolo	604	629	1,233
3	Itulike	617	643	1,260
4	Mgodechi	951	990	1,941

**Source:** Njombe Town council Resource allocation Estimates, 2008.

The area of the research was Njombe District, and in particular Njombe southern province. The area was preferred because it contained most of farmers producing the crop, which was sold out of the district, and it was an area with more conducive geographical climate for maximum production of the crop. Also, it was an area with most poor households as they only engaged in cultivation of potatoes, regardless of the fact that they could also engage themselves in tea farming as an alternative to income generation. The people involved in the survey include:

- (i) Small holder farmers
- (ii) Primary collectors of crops
- (iii) Whole sellers
- (iv) Retailers
- (v) District authority officials
- (vi) Brokers in Dar es Salaam
- (vii) Kariakoo market officials

#### Location for the population

- (i) Small farmers were located in the sampled villages of the District.
- (ii) Primary collectors involved in marketing of Irish potatoes were located in the villages as well as in Njombe town.
- (iii) Wholesalers/buyers were found in Njombe town as well as at Kariakoo market in Dar es Salaam.
- (iv) Retailers were found in the selected streets of Dar es Salaam city- the ultimate end for potato market.

- (v) Government officials were found in Njombe town as well as at village's extension offices.
- (vi) Kariakoo market officials were found at Kariakoo market in Dar es Salaam.

#### Characteristics of the populations

- (i) Smallholder farmers: - Majority was poor and lived below the country's poverty line, had non-mechanized cultivation tools, usually farm by hand hoe. Did not have capital enough to purchase agricultural inputs. Sold their produce right at the farm.
- (ii) Primary collectors: - Did not have established offices, therefore, they only moved from door to door. They usually depended on wholesalers/buyers for the capital. The volume of the crop they managed to collect determined their payments. Most of them were young employed on temporary seasonal basis.
- (iii) Wholesalers/buyers: - usually bought commodities in bulk. They were well organized and they had capital. They sold in bulk to retailers and at wholesale price.
- (iv) Retailers: - usually characterized by having established selling points. They sold commodities at retail prices and in small quantities plus obtaining commodities from wholesalers on cash or credit basis.
- (v) District/ Government officials: - were all government employees who worked to serve rural farmers population and the public in general. They had a goal that the rural population may achieve better life through income generated from agricultural activities.

(vi) Kariakoo market officials: - They were located at Kariakoo market in Dar-es-Salaam; they worked hard to make sure that the centre as a meeting point for both sellers and buyers functioned well. Being employees they made sure that for their employment to be sustainable they had to make sure that everyone walking into the ground was satisfactorily served.

#### **3.1.4 Socio-Economic Activities**

The mainstay of the district is agriculture, which employs about 78% of the total population. All households in the study villages are engaged in farming of various crops and animal keeping. The main crops are Irish Potatoes, Maize, peas, and wheat with Irish potato being treated as for both staple food and cash crop. Planting of trees for timber production is a growing potential activity in the area. Animals kept include pigs, goats, cattle and guinea pigs. Some of the community members are involved in trading of agricultural and agricultural related products such as timber, processing of maize as well as packaging and transportation of the products to various markets.

#### **3.1.5 Socio Services**

The socio services available in the study villages include primary schools, churches, health centers and roads. However, quality of these services varied in relation to the village's proximity to town center. For instance, roads to the villages far from town centre (70 – 80km) are mostly weather roads only passable in the dry season and hindering accessibility during the rainy season, on the other side roads to the villages closer to town center (10km) are better characterized as all weather roads but at least covered with gravel.

## 3.2 Research Methods

### 3.2.1 Analytical Frame Work

Since the income poverty level determination on rural farmers depends on elements such as actual income, poverty gap and poverty gap index. Therefore, the Foster, Greer and Thorbecke (1984) model was chosen for this study. The FGT (Foster, Greer and Thorbecke) model is defined as;

$$P1 = 1/N \sum Gi/z \dots\dots\dots (1)$$

Where P1 is the poverty gap index,  $G_i$  is the poverty gap of an individual,  $z$  is the country poverty line and  $N$  is the sample size.

The poverty gap  $G_i$  is given by;

$$G_i = z - y_i, (G_i = 0 \text{ when } y_i > z) \dots\dots (2)$$

Where  $y_i$  is the actual yield an individual obtains.

This measure is the mean proportionate poverty gap in the population (where the non-poor have zero poverty gap). It shows how much would have to be transferred to the poor to bring their incomes or expenditures up to the poverty line (as a proportion of the poverty line) (Haughton and Khandker, 2009).

### 3.2.2 Model Specification

There are several models that can be used to determine poverty level in a given population. This study employs the FGT model due to its advantages that (1) it can be used to measure the sensitivity of the poverty gap index to poverty and poverty line; (2) it can also be disaggregated for population subgroups and the contribution of each subgroup to national poverty can be calculated (Haughton and Khandker,

2009). This model is widely used in poverty measures (eg, Coudouel, Hentschel, and Wodon 2001 quoted in Haughton and Khandker, 2009).

Given the objectives of this study the FGT model is expressed as;

$$P_t = 1/N_t \sum G_t/z \dots\dots\dots (3)$$

Where  $P_t$  is the poverty gap index for farmers in Itulike village,  $N_t$  is the sample size in the village,  $G_t$  is the poverty gap for individual farmer in the village, and  $z$  is the country poverty line.

The poverty gap at Itulike village is expressed as;

$$G_t = z - y_t, (G_t = 0 \text{ when } y_t > z) \dots\dots\dots (4)$$

And  $y_t$  is the actual income for individual farmer at Itulike village.

Similarly, the corresponding parameters for the other three villages follow the same expressions as above. Where  $P_g, P_k, P_m$  represents poverty gap index for Mgodechi, Makowo, and Mamongolo villages respectively. The poverty gaps are represented as  $G_g, G_k$  and  $G_m$  for individual farmers at these villages, while their respective actual income for individual farmers are represented by,  $y_g, y_k$  and  $y_m$ .

### 3.3 Research Design

For the research to achieve the objectives stated in the previous chapters, a case study methodology was chosen. Yin (1984) defines a case study as “an empirical enquiry that: investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used”, a definition which is supported by Stake (1995). Mitchell (2000) states that the “ case study refers to an observer’s data:

that is, the documentation of some particular phenomenon or set of events which has been assembled with the explicit end in view of drawing theoretical conclusions from it". The reason for utilizing case study methodology is that it allows for an in-depth, detailed understanding of a specific phenomenon within a bounded system.

### **3.4 Sample Size and Sampling Techniques**

The sampling frame for any probability sample is a complete list of all the cases in the population from which the sample will be drawn (Saunders, et al 2003). Hence, for this study, sampling was designed in such a way that a list of cases was obtained from the strata in the population. The strata included; farmers from the villages in the area of study, primary produce collectors, secondary produce collectors, transporters, brokers at Kariakoo market in Dar-es-Salaam, wholesalers and retailers for the crop and the Government officials in the district, where included were agricultural extension agents as well as business departments, and lastly the media sector also was considered in the strata.

From each stratum cases were obtained by purposive sampling. This enabled the selection of cases that answered the research questions (Saunders, et al 2003). The sampling procedure employed multi-stage technique, and finally the sample size was determined by using tables as suggested by Krejcie et al (1970). In this study the sample size was 155 farmers obtained as a total number from four villages.

### **3.5 Methods of Data Collection**

Data were collected from the sample obtained from the population of the study area. Because the study was purposive, it targeted Southern province of Njombe District.

Therefore, a multi-stage sampling technique was employed. Where the area was made up of two divisions (Njombe township and Igominyi) with 26 and 43 villages respectively, making a total of 69 villages. By the technique, only 5% of the total number of villages was included in the surveys, which were approximately 4 villages with an average number of 402 households per village, which lead to 1,608 households in total. From there, the number of households included in the sample was determined using the table for determining sample size and this came to 310 households (Krejcie, et al 1970). However, the actual total number of respondent farmers came to 155.

Primary data were collected from the fields owned by interviewees, but also they provided from their previous years records. Secondary data also were obtained from Authority office records such as, District Agriculture, cooperative and business departments, as well as Kariakoo Market Authority. Method of collection involved filling in the questionnaire during interview.

### **3.5.1 Primary Data Collection**

Questionnaire survey method was used. The questionnaire did comprise of both open and closed questions. Data on average income per household were also obtained. From farmers' side data about the sources of knowledge about markets were collected and whether it did suffice the need. Also, farmers were asked to tell whether they got some assistance, which was beneficial or non-beneficial.

The study proceeded to involve groups of intermediaries at about three levels, i.e. primary collectors, wholesalers, and brokers who normally sold to retailers.



Therefore, the study involved collection of information from these groups and saw whether they understood their role they played against farmers. They also told if whether the legislation that guided their business was fair, suggestions about this were obtained from them.

### **3.5.2 Secondary Data Collection**

Secondary data were collected from both published and unpublished records in the District. Some official, i.e. local government officials were involved in the study to learn from them and saw how seriously they were involving themselves in solving the problem facing farmers to get rid of poverty through cultivation of Irish potato, and in ensuring fair trade.

### **3.6 Methods of Data Analysis**

Data analysis was based on the work of Miles and Huberman, as quoted by Saunders (2003). In which the process of analysis composed of three sub processes, these were: data reduction, data display and drawing and verification of conclusions. In data reduction, data collected were summarized and simplified, such that the data were transformed and condensed. In reducing data, production of interview or observation summaries, document summaries, interim summaries, coding and categorizing data, and writing memos were made.

The variables were measured according to the units. For instance, yield, in terms of kilograms per acre, Income in terms of TSH earned per year. Poverty level at household was obtained by calculating the Poverty Gap Index. Poverty Gap Index was calculated basing on the country poverty line for 2007, which was Tsh 13,998

per 28 days per person or approximately Tsh 500 per person per day (Policy Forum 2010). Level of markets education was measured by using the probit model where dummies were employed to determine the level of education, i.e., business skill, primary education, secondary education, and post secondary education. Binary variables were used to assess the type of education (1 and 0), 1= where there is no education and 0= otherwise (Olwande et al, 2009). Government's efficiency on its role in marketing of agricultural produce was determined by assessing the level at which farmers needed the government's involvement. Dummy values 1 and 0 were used, 1= government need, this indicated the government was not efficiently playing its role, and 0= government not needed, this indicated the government was playing its role efficiently.

Other variables such as land were measured in acres cultivated, distribution channel performance was assessed using the welfare theory, where social welfare in this case supply or distribution channel performance depends on two elements: (1) efficiency (profit) and (2) equity (people), that is, efficiency was concerned with the creation of value added; equity was concerned with division of value added over the respective stakeholders (Bunte, 2006).

Bargaining power by farmers was measured by assessing the direction of a shift in price and income risks, where price and income risks shift to farmers was associated by the shift in bargaining power from farmers to the marketing firms (Kuwornu et al, 2004). And farmer- intermediary relationship was measured by assessing the type of relationship. The relationship was rated as parasitic, symbiotic, or undefined. Dummy values were employed, 0= parasitic relationship; 1= symbiotic, and 2=

undefined relationship; and these could be used to determine the existence of a principal-agent relation, where marketing organizations and farmers engage in contracts with fixed and variable rewards (Bunte, 2006).

## **CHAPTER FOUR**

### **4.0 FINDINGS AND DISCUSSION**

This chapter intends to clearly present the results of the research, which had streamlined the objectives of the study into two main groups; one was the general objective which was to establish a way in which market intermediaries contributed to farmers' efforts in alleviation of income poverty. The second group of objectives were the specific objectives, these included; to identify marketing intermediaries involved in marketing Irish potato crop; to state the government policy on agricultural produce marketing and the ways in which it was implemented; and to find out whether there had been enough market education that empowered farmers to have acted as equal trading partners.

The chapter is further subdivided into four sections, which are also subdivided into several subsections. For instance section one which presents the descriptive analysis of farming activities and the characteristics of farmers is subdivided into ten subsections. Section two of the chapter presents the analysis of the role of Market intermediaries in poverty alleviation in the study area; the section is subdivided into fifteen subsections.

Section three of this chapter presents the analysis of the government supervisory role in marketing of Irish potato crop; this section is further subdivided into four subsections. And the last section of the chapter is section four which presents the analysis of the farmer – intermediaries' relationship.

## 4.1 Descriptive Analysis of Farming Activities and Characteristics of Irish Potato Farmers

### 4.1.1 Age of Respondents

A close observation on Table 4.1 shows that most of the farmers in the studied villages were distributed in age groups between 18 – 50, except at Itulike village where farmers were less in age group 41 – 50(16.6%) and mostly distributed in age groups 18 – 30(30.6%) and 51 – 60(30.6%). This implies that the majority of the respondent farmers was not very old and therefore could participate well in the farming activities.

**Table 4.1: Age Group Distribution of the Respondents in the Study Area (N= 155)**

Age Group	Itulike	Mgodechi	Makowo	Mamongolo
18 -30	30.6	27.3	31.4	52.0
31 - 40	22.2	27.2	40.0	20.0
41 - 50	16.6	29.1	25.7	20.0
51 - 60	30.6	7.3	2.9	8.0
61 - 70	0	9.1	0	0
Total Percent	100	100	100	100
Total Frequency	40	55	35	25

**Source:** Survey data, 2010

### 4.1.2 Gender of the Respondents

Gender wise the respondents were again as an average of the surveyed villages distributed as follows; Males were 62.4% while Female were 36.48 %, Itulike village being an exceptional where the distribution were 50 by 50(Table 4.2). These results imply that Male gender dominated the farming activities that involved growing of Irish potatoes.

**Table 4.2: Gender of Respondent Farmers in the Study Area (N= 155)**

Villages	Itulike	Mgodechi	Makowo	Mamongolo	Mean
Males (%)	50	50.7	68.6	69.2	62.40
Females (%)	50	31.3	31.4	26.2	36.48
Missing System (%)	0	17.9	0	3.8	
Total Frequency	40	55	35	25	
Cumulative Percent	100	100	100	100	

**Source:** Survey data, 2010

#### 4.1.3 Education Level of Respondents

Table 4.3 shows in the four surveyed villages the respondents formal education level was in the following distribution mean percentages; 14.15% had not attended primary school classes, 3.95% attended but did not complete standard seven classes, 72.1% had attended and completed standard seven, and 3.1% had achieved post primary school level. A close observation shows Makowo and Mamongolo villages having higher numbers (97.1 and 73.1 respectively) of farmers who completed standard seven almost above the overall mean, on the other side Itulike and Mgodechi have the numbers lower(60 and 58.2 respectively) than the mean on the same parameter. The results imply that the large percentage of farmers could have less skill on agricultural markets.

**Table 4.3: Education Level of Respondent Farmers in the Area of Study (N=155)**

Villages	Itulike	Mgodechi	Makowo	Mamongolo	Mean
Farmers who completed std VII (%)	60	58.2	97.1	73.1	72.1
Farmers with post primary school level (%)	5	4.5	2.9	0	3.1
Farmers who attended primary school but did not complete std VII (%)	7.5	4.5	0	3.8	3.95
Farmers who did not attend primary school (%)	22.5	14.9	0	19.2	14.15
Missing system (%)	5	17.9	0	3.9	
Total Frequency	40	55	35	25	
Cumulative Frequency	100	100	100	100	

**Source:** Survey data, 2010

#### 4.1.4 House Hold Size of Respondents

The households of the respondent farmers were found to consist of family members between 4 to 6 as the large percentage of interviewed farmers in the villages could indicate (Itulike 55.3%, Mgodechi 47.3%, Makowo 57.1%, and Mamongolo 40%), and few households had family size of 10 to 15 members (Table 4.4). The results suggest the possibility of large number of households having less manpower to work on farming activities. Hence, the farmer was necessitated to hire laborers from out of the household. However, this size of households also suggests a hard working attitude on farm activities to get out of income poverty.

**Table 4.4: Household size of Respondents (N=155)**

Family members	Itulike	Mgodechi	Makowo	Mamongolo
1 – 3	10.5	21.8	14.3	28.0
4 – 6	55.3	47.3	57.1	40.0
7 – 9	23.7	27.3	28.6	28.0
10 – 15	10.5	3.6	0	4.0
Total Percent	100	100	100	100
Total frequency	40	55	35	25

**Source:** Survey data, 2010

#### 4.1.5 Cultivated Area of Respondents

A Table 4.5(a) to 4.5(c) shows the distribution of the areas that were cultivated by the respondent farmers in the four surveyed villages for two seasons (2008/09 and 2009/10). In the first season (2008/09) 44.5% of farmers cultivated areas between 0 - 1 acre, 38.1% cultivated between 1.5 – 2.5 acres, 14.2% cultivated between 3 - 4 acres, 2.6% cultivated between 5 -6 acres, and only 0.6% cultivate more that 6 acres ( Table4.5(a)). In the second season (2009/10), 41.9% of farmers cultivated between 0 – 1 acre, 36.2% cultivated between 1.5 – 2.5 acres, 15.4% cultivated between 3 – 4

acres, 3.9% cultivated between 4.5 - 6 acres, and 2.6% cultivated more than 6 acres (Table 4.5(b)).

**Table 4.5(a): Cultivated Area in Acres 2008/09(N=155)**

	Area in Acres	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	15	9.7	9.7	9.7
	.25	6	3.9	3.9	13.5
	.50	12	7.7	7.7	21.3
	.75	3	1.9	1.9	23.2
	1.00	33	21.3	21.3	44.5
	1.50	18	11.6	11.6	56.1
	2.00	40	25.8	25.8	81.9
	2.50	1	.6	.6	82.6
	3.00	15	9.7	9.7	92.3
	4.00	7	4.5	4.5	96.8
	5.00	2	1.3	1.3	98.1
	6.00	2	1.3	1.3	99.4
	20.00	1	.6	.6	100.0
Total	155	100.0	100.0		

Source: Survey data, 2010

**Table 4.5(b): Cultivated area in acres 2009/10(N=155)**

	Area in Acres	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	9	5.8	5.8	5.8
	.25	1	.6	.6	6.5
	.50	13	8.4	8.4	14.8
	.75	4	2.6	2.6	17.4
	1.00	38	24.5	24.5	41.9
	1.25	2	1.3	1.3	43.2
	1.50	15	9.7	9.7	52.9
	2.00	34	21.9	21.9	74.8
	2.50	5	3.2	3.2	78.1
	3.00	18	11.6	11.6	89.7
	3.50	2	1.3	1.3	91.0
	4.00	4	2.6	2.6	93.5
	4.50	3	1.9	1.9	95.5
	5.00	2	1.3	1.3	96.8
	6.00	1	.6	.6	97.4
	7.00	1	.6	.6	98.1
	8.00	2	1.3	1.3	99.4
24.00	1	.6	.6	100.0	
Total	155	100.0	100.0		

Source: Survey Data, 2010



The results imply that there was an increase in the size of area cultivated by farmers from the first season (2008/09) to the second season (2009/10). On average most of the respondent farmers cultivated about 1.72 acres in season 2008/09, and the results shows that they increased the cultivated area to 1.98 acres in season 2009/10 (Table 4.5 (c) ). And further, the implication was the farmers were motivated by the cultivation of Irish potatoes to attain reasonable growth of their income.

**Table 4.5(c): Respondents' Cultivated Area Descriptive Statistics (N=155)**

	N	Minimum	Maximum	Mean	Std. Deviation
Cultivated area in acres 2008/09	155	.00	20.00	1.7242	1.89501
Cultivated area in acres 2009/10	155	.00	24.00	1.9790	2.26617
Valid N (listwise)	155				

**Source:** Survey data, 2010

#### **4.1.6 Irish Potato Production Experience of the Respondents**

Table 4.5 (b) shows not all respondents have the experience in record keeping of their farming activities, thus the number of respondents varied from one variable to another, and as well from year to year. For instance, of 155 respondents only 129 were found to keep records of their yield in 2008/09, while in 2009/10 the number increased to 142. About the records on costs of production only 115 respondents had kept the records in 2008/09 and 122 were found to have kept the same in 2009/10. These imply that the large number of farmers in the surveyed area was practicing commercial farming as they kept production records.

The respondents also showed an experience that on average the yield of Irish potato per acre was decreasing, that is from 33.94 bags in 2008/09 to 30.26 bags per acre in 2009/10 (Table 4.6 (a)). However, this decrease in yield was reported to be partly

caused by the unreasonable measurements used by market intermediaries, where they had increased the number of buckets per bag from 7 in 2008/09 to 11 buckets in 2009/10 (Memo4.1).

#### **Memo 4.1: Corruption in the Marketing of Agricultural Crop**

The government has left corruption to dominate in system of marketing agricultural crops, that is why buyers continue using improper measuring scales for example a bag of potato is termed complete when it is filled with a heap on top, and no one is trying to stop this, all responsible officers are just looking at it! For instance one bag contained 7 twenty litre buckets in 2008/09 while in 2009/10 contained 11 buckets of potatoes (Bosco Ndendya, a farmer at Mgodechi village, 2010).

In detail the larger part of the population (45%) produced between 3 – 29 bags per acre in 2008/09, 30.2% produced between 30 – 40 bags, 12.4% produced 41 – 50 bags and 12.4% produced above 50 bags of potatoes per acre (Table 4.6 (c)). In the season 2009/10 about 49.3% of the respondent farmers produced only 3 – 28 Bags per acre, 28.9% produced between 30 – 40 bags, 14.1% produced between 41 – 50 bags, and only 7.7% produced above 50 bags of potatoes per acre (Table 4.6 (d)).

**Table 4.6(a): Production Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Yield per acre 2008/09(#of Bags)	129	3.00	242.00	33.9426	26.08884
Yield per acre2009/10(# of Bags)	142	3.00	115.00	30.2606	17.85866
Production cost per acre 2008/09(Tsh)	115	35000.00	2860000.00	322718.8375	302492.44039
Production cost per acre 2009/10(Tsh)	122	16000.00	1420000.00	288271.8395	215185.53524
Valid N (listwise)	110				

**Source:** Survey Data, 2010

**Table 4.6 (b) Variation in Number of Respondents per Variable**

		Yield per acre 2008/09(#of Bags)	Yield per acre2009/10(# of Bags)	Production cost per acre 2008/09	Production cost per acre 2009/10
N	Valid	129	142	115	122
	Missing	26	13	40	33

**Source:** Survey data, 2010

**Table 4.6(c): Yield of Irish Potato per Acre 2008/09**

Potato Bags/acre	Frequency	Percentage
3- 29	58	45
30 – 40	39	30.2
41 – 50	16	12.4
51 – 60	9	7
61 – 70	2	1.5
71 – 80	1	0.8
81 – 90	2	1.5
91 – 100	1	0.8
101 and above	1	0.8
Total	129	100
Missing system	26	
Total	155	

**Source:** Survey data, 2010

**Table 4.6(d) Yield of Irish Potato per Acre 2009/10**

Potato Bags/acre	Frequency	Percent
3 – 29	69	49.3
30 -40	51	28.9
41 – 50	20	14.1
51 – 60	4	2.8
61 – 70	3	2.1
71 – 80	3	2.1
81 – 90	0	0
91 – 100	0	0
101 and above	1	0.7
Total	142	100
Missing system	13	
Total	155	

**Source:** Survey data, 2010

Similarly the production costs also followed the decreasing trend, from an average of Tsh 322,718.84 per acre in 2008/09 to Tsh 288,271.84 in 2009/10 (Table 4.6(a)). In detail about 49.6% of the respondents spent between Tsh 35,000 – 250,000 per acre as production costs in 2008/09, 9.5% spent between Tsh 251,000 – 300,000, 7.9% spent between 301,000 – 350,000, and about 33% spent above Tsh 350,000 as production costs (Table 4.6(e)). While in 2009/10 about 50% of the respondents spent between Tsh 16,000 – 240,000 per acre as production costs, 13.9% spent between Tsh 241,000 – 300,000 as production costs, 9.1% spent between Tsh 301,000 – 350,000, and about 27% of the respondents had spent above Tsh 350,000 as production costs (Table 4.6(f)). The results imply that the lower the cost of production the lower inputs levels were applied in producing the crop and hence resulted into decrease of yield.

**Table 4.6(e): Production Cost per Acre 2008/09**

<b>Cost('000Tsh)</b>	<b>Frequency</b>	<b>Percent</b>
35 – 150	28	24.3
151 – 250	29	25.3
251 – 350	20	17.4
351 – 450	14	12.1
451 – 550	12	10.5
551 – 650	6	5.2
651 – 750	3	2.6
751 and above	3	2.6
Total	115	100
Missing system	40	
Total	155	

**Source:** Survey data, 2010

**Table 4.6(f) Production cost per acre 2009/10**

Cost ('000 Tsh)	Frequency	Percent
35 – 150	34	27.9
151 – 250	34	27.8
251 – 350	21	17.3
351 – 450	16	13.1
451 – 550	3	2.4
551 – 650	6	4.9
651 – 750	3	2.5
751 and above	5	4.1
Total	122	100
Missing system	33	
Total	155	

**Source:** Survey Data, 2010

#### **4.1.7 Income from Potato Sales of the Respondent Farmers**

The daily income among farmers in the surveyed villages varied from one village to another as well as from one season to another. Table 4.7 shows the mean income that resulted from potato sales at Itulike village was Tsh 1,935.30 in season 2008/09, and Tsh 1,495.42 in 2009/10. At Mgodechi village the mean daily income was Tsh 5,239.85 in 2008/09 and Tsh 2,900.93 in 2009/10. At Makowo village the mean daily income in 2008/09 was Tsh 3,402.93 and was Tsh 3,579.93 in 2009/10. At Mamongolo village, the mean daily income in 2008/09 was Tsh 1,330.84 and Tsh 1,645.24 in 2009/10.

**Table 4.7: Farmers' Daily Income in Area of Study, in TSh. (N=155)**

Year	Itulike	Mgodechi	Makowo	Mamongolo	Mean
2008/09	1,935.30	5239.86	3,402.93	1,330.84	2,977.23
2009/10	1,495.42	2,900.93	3,579.93	1,645.24	2,405.38
N	40	55	35	25	

**Source:** Survey data, 2010

Although the variation in daily income was observed to differ in trend from one village to another, the general trend on average for all surveyed villages was a decreasing one. The mean daily income in the four surveyed villages was Tsh 2,977.23 in 2008/09 and Tsh 2,405.38 in 2009/10 (Table 4.7). These results imply that the daily income for farmers in the surveyed villages was directly related to the yield obtained from the cultivated area as well as the cost of production.

#### 4.1.8 Poverty Level of the Respondents

The poverty level measured by poverty gap Index had as well indicated to vary from one village to another as well as season to season. For instance, the poverty gap index at Itulike in 2008/09 was 0.0754 (7.54%), and was 0.0824(8.24%) in 2009/10 (Table 4.8).

**Table4.8: Poverty Gap Index of Farmers in the Study area (N=155)**

Year	Itulike	Mgodechi	Makowo	Mamongolo	Mean
2008/09	0.0754	0.0363	0.0206	0.0672	0.0499
2009/10	0.0824	0.0169	0.0218	0.0389	0.1766
N	40	55	35	25	

**Source:** Survey data, 2010

Table 4.8 shows the poverty gap index at Mgodechi village to be 0.363(3.63%) in 2008/09, and was about 0.0169(1.69%) in 2009/10. At Makowo village the poverty

gap index was 0.0206(2.06%) in 2008/09, and to be at 0.0218(2.18%) in 2009/10. The poverty gap index at Mamongolo village was 0.0672(6.72%) in 2008/09 and it stands at 0.0389(3.89%) in 2009/10 (Table 4.8).

Again the intervillages' poverty gap index was observed to vary in trend from season to season; however the general observation for all villages combined did show a trend of increasing poverty. For instance the overall mean poverty gap index in the four surveyed villages was at 0.0499(4.99%) in 2008/09 and it did stand at 0.1766(17.66%) in 2009/10 (Table 4.8). These results imply that poverty among Irish potato farmers was increasing at a rate of about 12.7 % (0.1267) in the study area, considering season 2008/09 to be the base.

#### 4.1.9 Market Education Provision to Respondents

Table 4.9 shows that only an average of 11.3% of interviewed farmers could declare that they were empowered through seminars about market education, and about an average of 83.25% declared that they had not attended any seminar on agricultural markets.

**Table 4.9: Market education provision in the area of study (N=155)**

	<b>Itulike</b>	<b>Mgodechi</b>	<b>Makowo</b>	<b>Mamongolo</b>	<b>Mean</b>
Farmers with Market Education (%)	10	10.4	17.1	7.7	11.30
Farmers without Market Education (%)	90	71.6	82.9	88.5	83.25
Missing system (%)	0	17.9	0	3.8	5.45
Total	100	100	100	100	
Frequency	40	55	35	25	

**Source:** Survey data, 2010

Market education provision varied in the individual surveyed villages as follows; at Itulike only 10% declared to have attended seminars on agricultural markets, and 90% had not (Table 4.9). At Mgodechi village the responses indicated that 10.4% had received market seminars and 71.6% had not received any training on agricultural markets (Table 4.9). Surprisingly, 17.9% of the interviewed farmers could not give any comment on the variable at Mgodechi village. Table 4.9 shows that at Makowo village, 17.1% of the interviewed farmers declared to have received seminars on agricultural markets and 82.9% had not. At Mamongolo village, 7.7% of farmers declared to have attended market seminars, while 88.5% had not (Table 4.9). Similarly, in this village there were 3.8% of farmers could not give any comment on the variable.

The results imply that the large percentage of respondent farmers were not educated on agricultural markets, and hence an opportunity to be exploited by buyers of their crops. On the other hand at the agricultural district departments it was noted that most of the officials were feeling not obliged to provide market education to farmers (Memo 4.2).

#### **Memo 4.2: Market Education Delivery to Rural Farmers**

It is very difficult to implement the strategies laid out by the Ministry on reaching farmers and educating them about efficient agriculture markets, as the lack of resources in the cooperative department is eminent.... We feel that the matter of educating farmers is not part of our duty, rather of other departments (Njombe District Cooperative Officer, 2010)



#### 4.1.10 Farmgate Prices Obtained by Respondent Farmers

The farm gate price obtained by farmers in the study area when compared for two seasons, it was noted that there was a slight increase in price on average. For instance, in season 2008/09 the bag of Irish potato was sold at Tsh 15, 869.09 on average, while in season 2009/10 the price per bag was Tsh 16,522 as an average price (Table 4.10). However, a close observation at individual villages was showing some differing changes. At Itulike village the price had decreased slightly from season 2008/09(Tsh. 17690) to season 2009/10(Tsh. 17,547.14), while at Mgodechi the price slightly increased from Tsh. 15,663.63 in 2008/09 to Tsh 16,633.33. Similarly, the price per bag of potato at Makowo also increased from Tsh.15, 700 in 2008/09 to Tsh.17, 400 in 2009/10, while at Mamongolo the price remained the same for both seasons (Table 4.10).

**Table 4.10: Farm Gate Prices Obtained by Farmers in the Study Area (N=155)**

	<b>Itulike</b>	<b>Mgodechi</b>	<b>Makowo</b>	<b>Mamongolo</b>	<b>Mean</b>
Farm gate price/bag 2008/09 ( Tsh)	17,690	15,663.63	15,700	14,565.79	15,869.09
Farm gate price/bag 2009/10(Tsh)	17,547.14	16,633.33	17,400	14,565.79	16,522.00
N	40	55	35	25	

**Source:** Survey data, 2010

#### 4.2 Analysis of the Role of MIs on Poverty Reduction in the Study Area

In this research it was found out that there were eight groups of market intermediaries who were in between the farmer and the final consumer of Irish

potatoes, these results are slightly similar to Eskola (2005) who found out seven groups of intermediaries in her study. The role of market intermediaries on poverty reduction in the study area is well understood by examining each group separately:

#### **4.2.1 Types of MIs in the Study Area**

In the study it was established that, intermediaries existed in the following groups;

- (i) Agent for the primary collector
- (ii) Primary collector
- (iii) Agent for the buyer in Njombe
- (iv) Broker for transporter
- (v) The transporter.
- (vi) Broker in Dar es Salaam
- (vii) Wholesaler in Dar es Salaam
- (viii) Retailer in Dar es Salaam

#### **4.2.2 Agents for Primary Collectors**

Agent for primary collector who was noted to be located at village level, performed a duty of distributing bags for packaging potatoes during harvesting, and gave out the buying price at farm gate, worked for the primary collector, also organized manpower to pack the produce according to the demands of the primary collector as instructed by the buyer. The agents for primary collectors in collaboration with the

primary collector they have power to determine the buying price for the commodity, and this price is always lower than what is given by the main buyer (Memo 4.3).

#### **Memo 4.3: Market Intermediaries' Role**

The primary collectors are being highly paid on our shoulders, while they themselves give us very low prices. I would suggest if it is necessary for them to play part between farmers and main buyers, then, they should just be given a job to distribute the bags for packaging, and the farmer be directly paid by the main buyer( Domitira Mlelwa, a farmer at Makowo village,2010).

#### **4.2.3 Primary Collectors**

The primary collector was found located at village level, and supervised several agents at various collection points, also monitored the quality of product being packed according to the standards given by the buyer, paid wages to his agents and laborers employed by the agents under him. The primary collector was also responsible of dispensing payments to farmers after crop packaging under the cash purchase terms, or under credit purchase terms. He was the one liable for payments to farmers after the crop was transported to the market in Dar es-Salaam.

#### **4.2.4 Agents for Secondary Collectors**

Agent for the buyer in Njombe Town who most of the time acted as a buyer or a transport broker, and occasionally worked as an agent for buyers coming from areas out of Njombe Town for instance, buyers from Kenya, Pemba and Comoro. He organized the load for this buyer with the primary collector therefore was liable to

the primary collector on all matters pertaining money. He was responsible to make sure that the crops have been packed to the standards provided to him by the buyer, so he will always inspect the bags before payments are made or before loading to the trucks ready for transportation.

#### **4.2.5 Secondary Collectors**

These are the agents in Njombe who are all indigenous to the area; they collect the crop for buyers from out of Njombe. These agents in Njombe have got their informal association through this association they collaborate with brokers for transport.

#### **4.2.6 Buyers From Out Of Njombe**

The buyer or trader from out of Njombe (Dar es Salaam, Kenya, Pemba) - explanations were obtained that during the main harvesting season buyers from out of Njombe are normally available to buy the crop, but they are normally not familiar with the sources so they must use indigenous people to locate the sources. And in actual sense the agents in Njombe (secondary collectors) who are all indigenous to the area won't allow any buyer to skip them as they maintain their employment.

#### **4.2.7 Broker for Transporter**

After the buyers have purchased the crop, he /she again have to solicit a broker for transporter. Owners of trucks always make their trucks available to brokers to find loads for them to transport; this is normally done on a certain fee. This fee is the additional amount on top of the price given to the broker by the transporter.

#### **4.2.8 Transporter**

Normally this is the owner of the desired trucks situated in Njombe or the driver of the on transit trucks going back after delivery of luggage.

#### **4.2.9 Market Brokers in Dar-Es-Salaam**

The broker in Dar es Salaam is situated at the desired market where the potatoes are offloaded; the markets are either at Mabibo, Tandale and Buguruni. These places are not formal markets (Memo 4.4); the formal market is at Kariakoo.

#### **Memo 4.4: Kariakoo Market Authority's Contribution to the market Conditions**

The imposition of higher fees and taxes per bag of potatoes offloaded at Kariakoo led to development of other side markets at the out skate of Dar es Salaam City such as Mabibo, Buguruni and etc; as a result it led to the increase in price per kilo of potato as retailers have to incur extra charge to bring the product back here (Charles, J. Ngingite, a retailer at Kariakoo, 0754 99 00 23; 2010).

At this non-formal markets selling of the crop are done on the trucks, there are no cold stores for this perishable crop. There is even not enough space for offloading, so the trucks jus pack on roadsides. During the study brokers for Irish potato were absent at Kariakoo as the trucks no longer offload there due to hiked market fees and taxes (Memo 4.4).

#### **4.2.10 Wholesalers in Dar-Es-Salaam**

They are business people who buy the crop in bulk and sell to retailers in large quantities, it is mostly done on credit and payment made after the product have been sold. Wholesalers can also be the brokers for the trucks delivering the loads;

#### 4.2.11 Retailers in Dar-Es-Salaam

They are located in various places in the city, selling the product in small quantities to consumers. They sell the crop to consumers either as ware potato or as processed in terms of fried chips.

#### 4.2.12 MIs Experience on Potato Marketing

Market intermediaries showed passionate on areas such as farm gate prices for farmers, crop quality in relation to prices, and the use of standard measurements in relation to porters' health.

**Farm gate prices:** Intermediaries experienced that farmers were receiving lower prices, and advised farmers to find a way to establish direct contact with consumers to escape intermediaries (Memo4.5)

#### **Memo 4.5: Possibilities for Farmers To Improve Farm Gate Prices**

For farmers to have their farm gate prices improved, a way to bypass intermediaries during time of selling could help them. They need to establish direct contact with actual consumers (Charles J. Ngingite, a retailer at Kariakoo-Dsm, 0754 99 00 23; 2010).

**Crop Quality:** On the other hand packaging of Irish potatoes should consider the issue of quality (size) to have better prices (Memo4.6). Market intermediaries experienced that, farmers were not grading their crops; instead they just packed mixed sizes of potatoes in the bags. This practice could not help in achieving better prices, thus the advice from intermediaries was that farmers should adopt better practices by sorting out the crop and pack only large sized produce for selling (Memo 4.6)

#### **Memo 4.6: Product Quality Improvement**

For farmers to get the better prices for their crop, I would advise them to make sure that they sort out small sized potatoes as this pushes the prices down. So they should always pack the large sized potatoes, and they should adopt only the standard volumes when packing (Fadhili Ally, a Broker at Buguruni-Dsm, 2010).

**The use of Standard measurements:** Another observation by the intermediaries was on the measurements used during marketing of Irish potatoes. The measurements were noted to be non standard, but also the bags were heavier in weights to the extent that could risk the health of porters (Memo4.7)

#### **Memo 4.7: Packaging of Irish Potatoes**

Would be better if standard measurements were developed such that the product is packed in more reasonable weights, this could also be convenient to porters' health. The current packing system is even detrimental to porters as heavy weights are packed per bag (Hassan Omary, retailer at Mabibo-Dsm, 0655435315; 2010).

Looking at Table 4.5(a and b), it's clear that farmers were making every effort to get their yield increased as on average the size of land planted Irish potato increased from 1.7 acres in season 2008/09 to 2 acres in season 2009/10. Surprisingly the increase in cultivated area did not result in increased yield but rather in decreased yield (when yield was measured in terms of number of bags per acre which was the measurement used during marketing as well). It is noted that the number of bags of Irish potatoes harvested per acre decreased from 34 bags in 2008/09 to 29 bags per acre in 2009/10.

The decrease in yield was due to two factors; it was explained that the intermediaries who are the buyers had expanded the capacity of their measuring scale than in the

past; in 2008/09 a poly- bag contained 7 buckets, while in 2009/10 a poly-bag contained 11 buckets. However, a bucket was estimated to carry 20Kg of the crop, therefore, practically there were an increase in production per acre, i.e., from an average of 4,760kg per acre in 2008/09 to 6,380kg per acre in 2009/10. Still yet this productivity was very low when compared to Kenyan farmers who on average harvested 9,600kg per acre in the year 2009 (MoAK, 2010).

Although on the other hand, the intermediaries tried to slightly increase the farm gate price by about 8.8% per bag on average, which was from Tsh. 14,840 per bag in 2008/09 to Tsh. 16,150 per bag in 2009/10. Which in actual sense it was a decrease in farm gate price of about 27% if the price per bucket was considered. The decrease was in comparison with the prices at the markets in Dar-es –Salaam which did range from an average of Tsh. 55,000/= per bag in 2008/09 to Tsh. 65,000/= per bag in 2009/10.

In assessing the contribution of market intermediaries in alleviating poverty in the study area, it was observed through the practice of using improper measuring scales when buying the crop on farm. This led farmers to end up with very little number of bags per acre which as a result led the drop in daily farmer's income on average from Tsh 2,977.23 in season 2008/09 to Tsh 2,405.38 in season 2009/10 (Table 4.7). The results shown that poverty in the study area is increasing, and hence the contribution by intermediaries.

This feeling of intermediaries contribution to rural poverty was also supported by farmers during interview when asked to rate their relationship on the same, the



results shows that, 80 – 96.4% of interviewees termed the relationship to be parasitic (Table 4.20). A view which also agreed with what Pokhrel and Thapa (2007) found in their study about mandarin producers in a mountain district of Nepal where farmers claimed that marketing intermediaries were just mere parasites.

#### 4.2.13 Market Education Level of MIs

**Table 4.11: Market education attendance for Market Intermediaries (N=6)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	6	100.0	100.0	100.0

Table 4.11 shows 100% of the groups of intermediaries had not attended training in markets education, but rather gained skills after being in the business for longer period. Hence it is worth to mention here that the lack of market education among agricultural market partners clearly explains the reason why there exists a poor relationship among them. For instance, on average about 84 % ( Table 4.20) of farmers interviewed did describe intermediaries as mere parasites (Memo 4.8).

#### **Memo 4.8: Parasitic Action by Market Intermediaries**

Intermediaries are real a pain to farmers because they are actually getting double payment, they siphon from the farmer's side as well as from the main buyer who also pays them after they have collected the crop from the field! (Avelina Mkalawa, a farmer at Itulike village, 2010).

#### 4.2.14 Market Prices of Irish Potatoes

Table 4.12 indicates that potato prices did vary from one season to another, for instance in season 2008/09 the price per bag of potato ranged between Tsh 40,000 –

80,000 and averaged at 60,750 for the whole season at Kariakoo market in Dar – es Salaam. In season 2009/10 the prices did range between Tsh 45,000 – 105,000 and averaged at Tsh 61,916 for the whole season. The results imply that the prices were best for market intermediaries than what was given at farm gates in the study area.

**Table 4.12: Kariakoo Market Descriptive Statistics 2009/10**

	N	Minimum	Maximum	Mean	Std. Deviation
Volume supplied 2009(Bags)	12	1103.00	2459.00	1519.7500	373.33780
Price per bag2009(Tsh)	12	40000.00	80000.00	60750.0000	13053.21277
Volume supplied 2010(Bags)	12	1275.00	2522.00	1754.2500	384.40181
Price per bag 2010	12	45000.00	105000.00	61916.6667	16989.07849
Valid N (listwise)	12				

#### 4.2.15 MIs' Income from Potato Marketing

**Transporters:** Table 4.13 shows the daily income earned from transportation of Irish potatoes ranged between Tsh 18,082.20 and 82,191.70, the mean income for the group was about Tsh.62, 794.48. These results imply that the transporters had a lucrative income.

**Table 4.13: Transporters Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Age in years	5	33.00	43.00	38.4000	4.56070
Quantity transported, in Tones	4	32.00	75.00	64.2500	21.50000
Monthly income	5	550000.00	2500000.00	1910000.0000	800312.43899
Annual income	5	6600000.00	30000000.00	22920000.0000	9603749.26786
Daily income	5	18082.20	82191.70	62794.4800	26311.60716
Poverty gap	5	0	0	0	0
Valid N (listwise)	4				

**Primary collectors:** The income on daily basis for primary collectors was recorded to be Tsh 13,698/=. This shows the primary collectors had also the best income resulting from Irish potato marketing.

**Brokers in Dar-es-Salaam:** Table 4.14 indicates that brokers in Dar es Salaam earned in a range between Tsh. 22,783.56 and 526,191.78 depending on the number of bags of potatoes offloaded, and averaged at Tsh. 285,175.88. These results imply that the brokers were better of than any body in the market intermediary group.

**Table 4.14: Brokers Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Age in years	5	30.00	44.00	39.2000	5.44977
Quantity Marketed in 08-09	5	252.00	7920.00	4170.4000	2967.95903
Quantity Marketed in 09-10	5	252.00	7920.00	3614.4000	2958.05963
Average Price	5	52500.00	65000.00	60750.0000	5968.66819
Average Income	5	8316000.00	192060000.00	104089200.0000	70615176.43680
Daily Income	5	22783.56	526191.78	285175.8880	193466.23750
Poverty Gap	5	0	0	0	0
Broker Experience	5	7.00	20.00	14.0000	5.24404
Valid N (listwise)	5				

**Retailers in Dar-es-Salaam:** Table 4.15 indicates that Retailers in Dar es Salaam earned on a daily basis an income ranging between Tsh.657.53 and 13,150.68, and as an average earning of Tsh. 11,890.41 depending on the quantity of Irish potato sold. The results shows the retailers in Dar – es Salaam were also better of than farmers in study area.

**Table 4.15: Retailers Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Age in years	11	20.00	40.00	27.4545	6.31449
Quantity Sold	12	400.00	288000.00	44933.3333	78559.45442

Retail Price	12	800.00	1000.00	983.3333	57.73503
Annual Income	12	240000.00	4800000.00	4340000.0000	1320330.53713
Daily Earning	12	657.53	13150.68	11890.4058	3617.34385
Poverty gap	12	0	0	0	0
Broker Experience	12	.08	12.00	5.2567	3.40342
Valid N (listwise)	10				

In general when combined all groups of market intermediaries in this study, they were found to have the daily earning ranging between Tsh. 11,890.40 and 285,175.88, and the mean income for all to be Tsh. 93,389.84 (Table 4.16).

#### 4.16: Intermediaries combined Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Mean annual Income	4	4340000.00	104089200.00	34087297.2500	47455059.83349
Daily Earning	4	11890.40	285175.88	93389.8400	130013.86291
Poverty Gap	4	0	0	0	0
Valid N (listwise)	4				

#### 4.3 Analysis of Government Supervisory Role in Marketing of Irish Potatoes

Table 4.17 shows the responses of interviewed farmers on the government supervisory role in marketing of Irish potatoes. The responses in the villages were; 60% at Itulike had not recognized the government playing its supervisory role, at Mgodechi 70.1% had such response, similarly 68.6% at Makowo and 76.9% at Mamongolo village. A small number of respondent farmers realized the government playing its supervisory role in marketing of Irish potatoes, (i.e. 25% at Itulike, 4.5% at Mgodechi, 28.6% at Makowo and 3.8% at Mamongolo). The rest of the

respondent farmers were either not sure of whether the government was performing its role or completely not able to comment anything. For instance, at Itulike 2.5% were not sure, 12.5% had no comment; at Mgodechi 3% were not sure, and 22.4% no comment; at Makowo 2.9% were not sure and at Mamongolo 19.2% had no comment.

**Table: 4.17 Farmers' Rating on the Government Supervisory Role (N= 155)**

	Itulike	Mgodechi	Makowo	Mamongolo
Government doesn't play its role	60	70.1	68.6	76.9
Government plays its role	25	4.5	28.6	3.8
Not sure	2.5	3.0	2.9	0
No comment	12.5	22.4	0	19.2
Frequency	40	55	35	25
Percent	100	100	100	100

**Source;** Survey data, 2010

These results imply that the government supervision on Irish potato marketing was not recognized by large number of farmers. The implication is as well supported on memos 4.9 and 4.10.

#### **Memo 4.9: Agricultural Marketing Systems Improvement**

If given chance to advise the government, I would suggest that her supervisory role should be focused on price regulation to reflect production costs, establishment of marketing places ,road maintenance and controlling activities done by these market intermediaries(Gregory Mwalongo, a farmer at Makowo village,2010).

#### **Memo 4.10: Markets Information**

It is very important that we need to have our doubts about markets cleared, and to accomplish that we suggest to the government to at least furnish us with information about market prices for our crops, and this have to be done regularly (Wilgis D, Mlelwa, a farmer at Mamongolo village, 2010).

#### **4.3.1 Statement of Government Agricultural Marketing Policy**

It was noted that a separate policy on agricultural products marketing was in place. This was the “Agricultural Marketing Policy, 2008” (AMP), hosted by the Ministry of Industries, Trade and Marketing (MITM). The policy has its Vision, Mission and Objectives stated as follows:

**VISION:** To have a competitive and efficient marketing system for the agricultural commodities leading to a rapid and broad based economic growth.

**MISSION:** To develop agricultural marketing systems that influence agricultural production plans which respond to domestic and foreign market dynamics.

#### **OBJECTIVES**

**Overall Objective;** the Overall objective of the Agricultural Marketing Policy is to facilitate strategic marketing of agricultural products while ensuring fair returns to all stakeholders based on a competitive, efficient and equitable marketing system.

#### **Specific Objectives**

The specific objectives of the Agricultural marketing policy are to;

- (i) Stimulate diversification and value addition in agricultural commodities in response to increasing and changing demand;

- (ii) Promote adherence to quality , standards and grades in agricultural products to start with the domestic market;
- (iii) Reform the legal and regulatory framework that guides the agricultural marketing systems and harmonization to obligations and rights emerging from the multilateral trading system and regional arrangement;
- (iv) Empower, promote and support the formation and development of agricultural marketing institution;
- (v) Promoting investments in agricultural marketing infrastructure and agrobusiness;
- (vi) Stimulate and facilitate the development of efficient and effective agricultural marketing information, research and intelligence systems for the development of existing and new agricultural markets;
- (vii) Promote development, adoption and use of risk management strategies in agricultural marketing;
- (viii) Enhance access to agricultural marketing finance;
- (ix) Identify and promote niche markets as way of addressing agricultural commodity markets facing mature global markets; and,
- (x) Mainstreaming crosscutting issues.

These objectives are explained in details under the respective policy issues (URT, 2008). Whereas the same Agricultural Marketing Policy (2008) document, explains well that the Agricultural Sector Lead Ministries (ASLM) will undertake the policy implementation.

#### **4.3.1.1 The Weight and Measures Act, 1982**

In commercializing agriculture, the policy implementation is also supported by the use of other tools such as putting in place The Weight and Measures Act of 1982. In the act are provided units of measurement, the national standards, standard equipments, working standards, and the weight and measures permitted to be used in trade. Furthermore, in the tenth schedule of the act provides the manner in which certain goods shall be sold. For instance all foodstuffs are described to be sold either by weight, number or capacity measure. Part II of the act on Standards, clearly describes in section 3(1):

Without prejudice to the power of the Tanzania Bureau of Standards(TBS) to set standards, the International System of Units(SI) shall be a system of measurement by reference to which any measurement in trade shall be made in the United Republic,(2) The international System of Units shall consist of (a) the base units set out and defined in the First Schedule;(b) the supplementary units set out and defined in the second schedule;(c) units derived from the base and supplementary units: and defined in the third schedule; (d) any special and permitted units that may be used in conjunction with- units mentioned in paragraph (a) to (c) as adopted by the General Conference and referred to in the Fourth Schedule.

In section 4, the act proceeds;

The prototype copies of the international standards of the KILOGRAMME and METRE together with any prescribed standards representing SI Base units as defined in the First Schedule hereto procured and maintained by the Tanzania Bureau of Standards shall, for the procurers of the National Standards. (2) Without prejudice to



the provisions of the Standards Act, 1975, the Tanzania Bureau of Standards shall for the purpose of this Act the procurers National Standards. Further, in Section 9 of the Act specifically mentions that;

The Minister shall procure and cause to be maintained standard equipment which from time to time may determine as being proper and necessary for the verification of standards of weight and measures. Section 10 (1) Every assizer shall be provided with sufficient working standard of Weight and Measures which shall be used for assizing or re-assizing weight or measures or instruments for use in purpose of trade (2) Once at least in every twelve months an assizer shall compare the working standards, which have been in use during the past twelve months, with the Secondary standards, and, if necessary be corrected and adjusted before signing the certificate prescribed in paragraph (b) of the Ninth Schedule of the Act. (3) The Minister may at any time cancel any working standard and direct that it no longer be used. (4) Judicial notice shall be taken of every working standard and each such standard shall be deemed to be true and accurate until the contrary is proved.

Also, about the use of Weight and measures in Trade, the Act in Part III section 11 describes that;

- i. Unless otherwise permitted by the Act, every contract, bargain, sale or dealing made or had after the commencement of this Act whereby any work, goods, wares, merchandize or other thing is or are to be, or is or are done, sold, delivered, carried, measured, computed, paid for or agreed by weight and measure, shall be made and had according to one of the relevant units or

measurement specified in the First, Second, Third, Fourth, Sixth, Seventh and Eighth Schedule of this Act or some multiple thereof, and if not so or made or had, shall, so far as it is to be performed in the United Republic, be void : provided that a court may in exceptional circumstances in the interest of justice, direct that a person who has received an advantage, under such contract, bargain, sale or dealing so declared to be void shall restore it or make compensation for the person from whom it was received.

- ii. All tolls and duties charged according to weight or measure shall be charged and collected according to one of the relevant units specified in the First, Second, Third, Fourth, Sixth, Seventh and Eighth Schedules or to some multiple of the units.
- iii. Such contract, bargain, sale, dealing and collecting of duties mentioned in this section are in this Act referred to under the term “trade”.

Similarly the act provides for penalties given to anyone committing offenses in the practice.

#### **4.3.2 Agricultural Marketing Policy Implementation in the Study Area**

Generally, it was noted that there were little knowledge about the existence of the Agricultural Marketing Policy (2008) to respondents. In reality interviewees had their comments that no policy existed for monitoring agricultural crops marketing (Memo 4.11).

#### **Memo 4.11: Agricultural Products Marketing Policy**

Regardless the fact that, Irish potato is the main contributor to farmers' economy in the area, there is no policy to supervise marketing activities of the crop. However, the Ministry of Agriculture, the Town Council and the Weights and Measures department are the responsible Organs entitled to enforce regulations on marketing of agricultural products (Kilumile Norasco, a Njombe Town Council Crop Officer, Njombe, 2010).

The results indicated in Table.4.17 about the rating given by respondent farmers on government's supervisory role on marketing of Irish potato satisfactorily explains the implementation of this policy. Large percentage (60 – 76.9%) of the interviewed farmers from the study area declared to have not recognized the government intervention in marketing of Irish potatoes. Examining the specific stated goals of the policy as stated above, it was generally found that very little effort had been exerted towards the implementation of the crop sub sector policy by the Government through her responsible Ministry. For instance the government had intended to have;

**(i) Research concentrated on producing better yielding varieties so as to increase production of products preferred by market;**

The first and second specific objectives of the AMP takes for granted that the MAFC through its functions the first goal of the Ministry will have been met. The actual situation in the study area revealed differently. Leave alone the introduction of better yielding varieties of Irish potato seeds, there were nothing done even to have the available varieties renewed; farmers were not even able to tell the history of the seed material introduction in their areas. This is another reason for the decreased crop

productivity noted during the study in the research areas for seasons 2008/09 and 2009/10 where the farmers harvested at average 33.9 and 30.3 bags per acre, respectively (Table 4.6 c and d). Which if converted in terms of Kilograms, farmers harvested on average 4,746kg and 6,666kg per acre in the respective seasons.

These ranges are obviously lower if compared to the theoretical value which is 10,000kg of potatoes per acre of a well managed crop. The ranges are even lower in the study area than what farmers in a neighboring Kenya who obtained on average about 9,600Kg per acre in 2009(MoAK, 2010). The results easily indicate how the government as a change agent and as well as facilitator had not managed to fulfill the above stated goals. The non-activity by the government on this area was also noted through assessment on the comments made by interviewees, where they as well commented that they understand the government has a responsibility to show a way as well as doing researches in various areas of agriculture industry (Memo 4.12).

#### **Memo 4.12: Need for Research on Marketing Systems**

I understand that the government is there to show a way how things can be done, therefore it is the one that is supposed to do research on the agricultural activities including the marketing of crops, and find out the weaknesses and try to alleviate them!(Adella Kilumile, a farmer at Mgodechi village, 2010).

Again to prove that there were hardly any researches being done to even monitor crop productivity, the visit at Njombe Town Agricultural department failed to produce the actual production records for seasons that were dealt during the study, and only estimate records were available for the future season. This was another

proof where one could easily see how the flow of information could almost be impossible for farmers to be able to have comparison of their productivity to neighboring villages even in their own district.

**(ii) Better storage technologies will be developed in order to maintain quality and spread supply throughout the year**

Again this MAFC goal was related to the AMP specific objectives two and seven, having the objective two stated above, during the study not only better storage technologies that were absent, but there were no any storage technology found among farmers or even marketers at the market to maintain quality and supply of the crop. Comments by interviewees also did signify the fact that there had been no education on storage technologies, just as interviewees commented that they were forced to harvest their crops at the same time as they did not know how they could store their crops to wait for better prices (Memo 4.13).

**Memo 4.13: Storage Technology for the Crop**

We are forced to sell all the crops once they are ready as we don't have proper technique to store them to at least wait for better prices. Therefore everybody harvests at the same time and as a result we obtain very low prices! (Ajentina Mlata, a farmer at Itulike village, 2010)

Again the government being the change agent and facilitator found to have remained dormant on this area.

**(iii) Processing to Convert These Crops Into a Wide Range Of Products In Order To Expand Utilization Will Be Encouraged by Government**

This goal could as well be related to the first objective of AMP. However, the researcher hardly found a processing facility for the crop under study at the study area, neither at farmers' location nor at the consumers' locations. Still the crop depends on retail distribution in its raw state (i.e. ware potato); regardless of its perishability.

**(iv) The Government Shall Encourage and Support Establishment of Market Centers for These Crops and In Collaboration with the Private Sector Establish Marketing Conduct for the Commodity Group**

This MAFC goal relates to AMP objectives number eight and nine. the researcher could not locate any market centre for the crop and hardly were noted any private organization working on marketing of the crop, only found out that marketing of Irish potatoes were done either on farms or at residence places (Memo4.14)

**Memo 4.14: Need for Marketing Centres**

In order for farmers to get maximum satisfaction on agricultural products marketing systems, it is very important that Marketing centers are established on the respective villages (Godfrey Mwalongo, a farmer at Makowo Village, 2010).

**4.3.3 Agricultural Extension Services Provision in the Area**

Table 4.18 below shows the ratings of the respondent farmers on agricultural extension services in the study area, where, 77.5% claimed to have not received extension services at Itulike village, 79.3% at Mgodechi, 74.3% at Makowo, and 76.9% at Mamongolo. Agricultural extension services were mentioned to be

available by minimal percentage of 10% and 8.6% at Itulike and Mgodechi villages respectively. These results imply that the large populations of farmers in the study area are not receiving agricultural extension services.

**Table 4.18: Farmers rating on extension services provision (N= 155)**

	<b>Itulike</b>	<b>Mgodechi</b>	<b>Makowo</b>	<b>Mamongolo</b>
No extension services	77.5	79.3	74.3	76.9
Extension services available	10	8.6	0	0
Not sure of the service	0	3.4	0	0
No comment	12.5	8.6	25.7	23.1
Frequency	40	55	35	25
Percent	100	100	100	100

**Source;** Survey Data, 2010

#### **4.3.3.1 Market Education Provision**

In this study it was found that market education was delivered to farmers in form of Seminars. According to the research it was noted that only 11.3% of interviewees had acquired seminars on market education, and the larger portion (83.25%) had not received seminars on the same (Table 4.19).

**Table 4.19: Survey area Market education provision Descriptive Statistics**

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
Farmers with market education (%)	4	7.70	17.10	11.3000	4.04557
Farmers without market education (%)	4	71.60	90.00	83.2500	8.34606
Valid N (listwise)	4				

**Source:** Survey data, 2010

Therefore from this inference it was clearly noted that the level of market education on farmers was very low.

#### **4.3.3.2 Agricultural Business Registration in the Area**

Survey in the study area via District business department showed that marketing of Irish potatoes was not recognized as a commercial business and therefore was not registered.

The Table below shows most of the respondent farmers rated market intermediaries as mere parasites. For instance, at Itulike about 80% of the interviewed farmers described the relationship that existed between farmers and market intermediaries to be parasitic. At Mgodechi 69%, while at Makowo and Mamongolo the ratings were 91.4% and 96.2% respectively (Table 4.20). The results imply that market intermediaries were not positively helping farmers in their efforts to fight income poverty.

**Table4.20: Farmers – Intermediaries Relationship (N= 155)**

	<b>Itulike</b>	<b>Mgodechi</b>	<b>Makowo</b>	<b>Mamongolo</b>
Parasitic	80.0	69.0	91.4	96.2
Symbiotic	5.0	12.1	5.7	0
Both	0	1.7	0	0
No comment	15.0	17.2	2.9	3.8
Total	100	100	100	100
Frequency	40	55	35	25

**Source:** Survey data, 2010

#### **4.4.1 Comparison of Poverty between Farmers and Market Intermediaries**

The Table below shows varying percentages of farmers who were in poverty and those who were not poor in season 2008/09 and 2009/10. Generally the number of farmers not in poverty did range from 56.4% at Mamongolo village to 93.2% at Makowo village and the number of poor farmers ranged from 6.8% at Makowo to 43.6% at Mamongolo in season 2008/09. For season 2009/10 the number of non-



poor farmers ranged from 48.7% at Mamongolo village to 94.5% at Mgodechi village, while the number of those in poverty ranged from 5.5% to 51.3% at Mamongolo village. These results generally imply that most farmers were not poor.

However, a closer view on the Table shows that the number of the poor increased in most of the villages in season 2009/10, and this tendency suggests for a non steady income against farmers. On the other hand comparing farmers to the market intermediaries, the Table shows none were poor among the group of market intermediaries as 100% of the interviewed had their poverty gap index at zero.

**Table 4.21: Percentage of Farmers' Poverty Status in the Study Area**

	2008/09			2009/10		
	Not Poor	Poor	Total	Not Poor	Poor	Total
Itulike	82.5	17.5	100	80	20	100
Mgodechi	89.1	10.9	100	94.5	5.5	100
Makowo	93.2	6.8	100	78.4	21.6	100
Mamongolo	56.4	43.6	100	48.7	51.3	100

**Source:** Survey data, 2010

**Table 4.22: Percentage of Market Intermediaries not in Poverty 2009/10**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	4	100.0	100.0

**Source:** Survey data, 2010

From the results in this study on the increased poverty level among farmers seem not to be surprising as already the trend had as well been noticed by Policy Forum where

in 2000/1 the total number of people living below the poverty line in Tanzania increased by 1.3 million (Policy forum, 2010).

**Table 4.23: Market Intermediaries poverty Gap Index Descriptive Statistics 2009/10**

	N	Minimum	Maximum	Mean	Std. Deviation
Annual Sales	4	4340000.00	104089200.00	34087297.2500	47455059.83349
Daily Income	4	11890.41	285175.89	93389.8555	130013.86255
Poverty Gap	4	.00	.00	.0000	.00000
Poverty gap Index	4	.00	.00	.0000	.00000
Valid N (listwise)	4				

## CHAPTER FIVE

### 5.0 CONCLUSION, RECOMMENDATIONS AND FUTURE STUDIES

#### 5.1 Conclusion

Poverty reduction in rural Tanzania is highly related to the efforts exerted on agriculture, the later being the lead sector that contributes about 45% to national GDP and 60% of export earnings. In rural Tanzania, Njombe district being part of it, the efforts by rural farmers to reduce poverty in their community is hindered by several factors. Some of these factors include the role played by agricultural market intermediaries, the government supervisory role on agricultural trade and markets.

Empirical studies show that market intermediaries have been playing an exploitative role against rural farmers, hence being a major hindrance to farmers' efforts to reduce income poverty. Market intermediaries have been playing their role unfairly by cheating farmers on crop prices as well as the use of non - standard measuring scales. The lack of proper supervision on the implementation of government policies

on the same has also been facilitating the practice. As a result income poverty has been insignificantly reducing from 36% in 2001 to only 34% in 2007. This study revealed eight groups of market intermediaries (MI's) these are; (i) agents for primary collector;(ii) primary collector;(iii) agents for buyers in Njombe Town;(iv) broker for transporter; (v) the transporter;(vi) broker in Dar-es-Salaam;(vii) wholesaler in Dar-es-Salaam;(viii) retailers in Dar-es-Salaam.

Descriptive analysis through SPSS 20 on 155 respondent farmers, showed market intermediaries deceived farmers in the season 2009/10 about the crop measuring scale; they increased the number of buckets to about 11 from 7 buckets per bag in 2008/09. This indirectly led to a decrease in farm price, where the mean price per bag was Tsh.15, 869.09 (approx. Tsh 2,267.01 per bucket full of potatoes) in season 2008/09 and the price in 2009/10 was at about 16,522 per bag (approximately Tsh 1,502 per bucket full of potatoes). Poverty level was determined to have increased in the study area from the mean poverty index of 4.99% in 2008/09 to 17.66% in 2009/10 and in general providing an increase in poverty of about 12.67 % among farmers. While market intermediaries were found to have the poverty gap index at zero, this means they were not in poverty.

Of significant impact on income poverty was the large number of market intermediaries between farmers and the final consumer. This caused a huge difference in farm gate price and the actual market price. For instance the mean price per bag of potatoes on farm was about Tsh. 15,869 in 2008/09 while at Kariakoo market in Dar – es Salaam the same bag was sold at a mean price of Tsh. 60,750/=

with a standard deviation of 13,053/21. In season 2009/10 the farm gate price was at a mean of Tsh.16, 522/= per bag while at Kariakoo market the same bag was sold at a mean price of Tsh. 61,916/67 per bag with a standard deviation of 16,989/07.

These imply that the difference in price between farm gate and the market was distributed among the groups of market intermediaries. Hence, the increased number of market intermediaries also increased the exploitative effect against farmers. This as well suggested the reason why income poverty among farmers in the study area increased by 12.7% while, the poverty gap index among market intermediaries stayed at zero.

Another factor of great impact on poverty reduction in the rural Njombe district was the lack of government agricultural market policy supervision. Descriptive analysis results show that about 60 – 76.9% of respondent farmers declared lack of government supervision on agriculture and marketing activities. Similarly, about 74.3 – 76.9% of the respondents also declared they had not received agricultural extension services during the study period. This explains the reason for lower production of Irish potatoes per acre by farmers.

The lack of government supervision on agricultural market policy gave opportunity to market intermediaries to play an exploitative role in marketing of Irish potatoes produced by farmers in the study area. This led respondent farmers (69 -96.2%) to describe a parasitic relationship between them and their fellow market intermediaries. The lack of market education on farmers was found to have no impact on poverty level among farmers and market intermediaries as no factor was

directly influencing the other. For instance, on average in the studied villages about 83.25% of the respondents had not received any training on markets, but 56.4 – 93.2% was not in poverty with reference to the national poverty line. And on market intermediary groups, about 100% of the interviewed had as well not received market education, but again almost 100% were not as well in poverty.

Identification and analysis of the factors affecting Irish potato farmers' efforts against income poverty were revealed to be the exploitative role played by market intermediaries, lack of government market policy supervision and lack of implementation of the agricultural and cooperative development policy.

## **5.2 Recommendations**

### **5.2.1 Reduction of the number of market intermediaries in the market channel**

An action to reduce the number of intermediaries in between farmers and consumers will shorten the distribution chain, and hence improve contact between farmers who are producers and the actual consumers of their product. This action can be achieved through accomplishment of several steps.

First, is formation of strategic alliances among farmers (Thornsby, 2007) would help farmers to bring their efforts together and build more strength on their bargaining power for better prices for their crops. Under these alliances, farmers will be able to also invite educators on specific matters that are of interest to their activities. They will also be able to participate well in the formation of agricultural market policy as they will contribute in a group way. But also alliances can give them way to communicate with other production groups elsewhere with the same

interests. Such alliances could as well help farmers to employ market intermediaries of their own whom they can have power to instruct duties that will meet their focused interests, just as it was found by Kotler, (2000), that in the 21<sup>st</sup> Century, manufacturers will be looking to own market intermediaries to be able to supervise them.

The second step suggested here is the establishment of packaging or buying points for intermediaries (buyers). These buying points will help farmers to be able to negotiate and set up guidelines of how they want their crops to be treated, but also these points will be convenient for regulatory authorities when inspecting to see if the market standards are being abided. This was also found to work on farmers in Burma by Okamoto (2004).

Thirdly, it is being recommended in this study that, to help farmers achieve their goal of raising their income and eradicate poverty, it is most important for farmers markets to be established in the areas they sell their crops. Currently, farmers do send their crops at Dar-es-Salaam where in the study it was realized that there were no designated locations for farmers' crops to be sold, it has just been done as a side business (black markets) and that is why there were even no storage and offloading facilities for bulky and perishable crops. If farmers markets are to be established properly, a need to have enough space for offloading these crops, storage facilities, and well organized administration, will provide a nice communication network not only with farmers but also with other markets in the outside world. With organized farmers market one will be able to even follow up products records and be able to determine what is being supplied at the market but also determine market demand.

### **5.2.2 Ownership of Agricultural Market Policy and Implementation**

At present, the Agricultural market policy and implementation is solely dependent on the government through the Ministry of Agriculture, Food and Cooperatives and some Agencies in other Agricultural Sector lead Ministries. In the study it was noticed that the implementation of the policy had been dwindled as every considered Ministry or department was not putting full effort to implement it thinking their fellow departments or Ministries were doing it. As a result no one was found to be working on it. Therefore, it is recommended here that, the policy ownership be streamlined to only one non-political allied organization whether public or private, such that the follow up on the outcomes could be easily determined. The organization mandated will be able and have power to enforce the trade laws. Studies shows that, when the government of Uganda realized the need to improve potato production and raise income for smallholder farmers, CIAT was mandated and the results were very positive to the extent that farmers had produced surplus in terms of potato seeds, and even to such extent CIAT still worked hard to find other alternatives for farmers to have their crop sold, it included encouraging processors to design processing facilities that could add value on the crop and have the crop marketability improved (Kaganzi,E. et al 2008).

### **5.2.3 Improvement of Markets Education Delivery on Farmers**

To improve the process of delivering market education to farmers, it is recommended here that, the aforementioned recommendations are implemented. This is because in the study it was noticed that the only way that was used to deliver education to farmers was for individuals to attend seminars or vocational training

centers. This was not efficient as a result only 11.3% of interviewees managed to benefit. So to reach most of the targeted community, it is highly recommended that farmers are organized in their alliances and committed organizations be contracted to conduct the training to farmers. Studies again show that, CIAT in Uganda used a participatory approach to attain its agro-enterprise development through engaging farmers in the training under their organization known as Nyabyumba Farmer's Group which was eventually turned into Nyabyumba Farmers Field School in 1988 (Kaganzi, E. et al 2008).

#### **5.2.4 Provision of Business Education to Markets Intermediaries**

To improve fair treatment in the process of marketing agricultural products, it is also suggested that a plan to disseminate basic business education to agricultural markets intermediaries would be very important. This will enable them understand their responsibilities, but also improve their way of relating with farmers as well as other product suppliers. Business education will also give them knowledge that, Agricultural Marketing system is like a play ground where the producers (Farmers), Market intermediaries, and buyers are the sole players; and that for the game to be of interest to everybody there must be some rules which must be abided by all players to keep fairness to all. Otherwise, if fairness is not there other parts might be discouraged and the pleasure for being involved won't be there, and eventually the game breaks.

#### **5.3 Suggestions for Future Studies**

In the present study it was only noticed that the formation of farmers groups in form of primary cooperatives was not in existence as the former were paralyzed in the past



years as a result of loss of confidence by farmers against the state organized cooperatives. Because of such bad history of state organized cooperatives it was noted that, farmers are completely uninterested in forming such groups, but still the only way for farmers to succeed in their efforts to fight poverty is to have them join their efforts to have one strong voice, and power to bargain in the business.

Therefore, it is suggested here that a study on the nature of alliances or groups that could work efficiently in the war against poverty for farmers is required. Similarly, this study did not research on the proper design of the marketing channel that will be more efficient for farmers producing Irish potato in the area. Hence, a study on a design of a shorter distribution channel for the crop would be convenient at this stage. But also the study did not find out the reasons for the government to have such a vague implementation plan on the Agricultural Marketing Policy (2002). Thus, scrutinization of the policy implementation plan could warrant an independent study of the policy and its implementation.

Finally, the study could also not find out about the purity of potato seed material that the farmers are cultivating. Therefore the study on the purity of seed material being used for production of the crop in the area is crucial to be able to convince farmers to adopt new and pure seed material for them to improve production and raise their income.



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## APPENDICES

### Appendix 1: Survey questionnaires

#### Part I: Questionnaire for Farmers

##### Introduction:

1. What is your name ?.....Gender( Male/Female)
2. How old are you? .....
3. What is your level of education?.....
4. When did you start involving yourself with farming ?
5. How many type of crops do you farm ?.....
6. Can you mention the crops?.....
7. Of the crops above which ones are for cash and those for food.....
8. How much arable land do you possess?.....
9. Have you ever attended any course on markets and marketing?.....YES/NO
10. If given opportunity, would you like to attend training on markets/marketing of agricultural crops?.....YES/NO
11. Apart from farming do you engage yourself in any other activities?.....YES/NO
12. If (11) is yes ,mention those activities;.....

##### Potato yield:

13. What is the portion of land were grown with Irish potato for the year 2008/09.....(acres), and 2009/10.....(acres).
14. What was the respective yield for (13) above, 2008/09..... ( Bags/Kgs), 2009/10.....( Bags/ Kgs).



15. How do you normally measure your crop yield, is it in terms of Bags or Kilograms per area planted?
16. If the measurement above is done in terms of bags, what is the average weight per bag.....

Marketing:

17. What did you do with the potato yield you harvested? *Consumed at home/ sold for cash.*
18. What is the portion of the yield was sold for cash.....
19. Where do you normally sell your crop when time comes for that.....
20. Are you aware of any other places that could take your crop at time of selling?YES/NO
21. If the answer above is yes, mention the places.....
22. Are you satisfied with the present marketing system of your crop?YES/NO
23. If the answer (22) is yes, what are your views to other farmers in your area;.....
24. If the answer (22) is No, what are the things that makes you dissatisfied.....
25. What would you like to be done on the marketing system to at least satisfy you.....
26. Do you normally take your crop to the market *on your own* or you sell them *through intermediary.*

- 27. If you sell through intermediaries, how do you get paid for your crop? By Cash/ Credit which means you get paid after your intermediary have sold everything at the market? ...
- 28. Are you always satisfied with the prices offered by your Intermediaries?  
YES/NO
- 29. If the answer above is yes, how much do you think the intermediary is getting per bag?.....
- 30. What were the price you got in year 2008/09....., and 2009/10.....
- 31. Did you sell all your crop at once or by installment?.....
- 32. Why did you do that on item (31) above.....
- 33. If the answer in (28) is No, Why?.....
- 34. Is there any point in the process before selling the crop where you undergo weight, quality check as well as value estimation?
- 35. Do you think the government has a role to play in the marketing of your crop? YES/NO
- 36. Why do you think so(34).....
- 37. If you were given chance, what would you suggest the government to do to improve the marketing system of your crop?.....  
.....

Farming cost:

- 38. How much did it cost you to produce your yield in 2008/09.....; 2009/10.....

39. Can you list the inputs you used in the season above;  
2008/09.....2009/10.....
40. Did you get some of the inputs on credit from your suppliers? YES/NO
41. If not, would you prefer to have them in the future? YES/NO
42. Have your crop buyers ever tried to give some advances in the past, in terms  
of money or material to assist you during farming season? YES/NO
43. If not, would you like to try that? YES/NO
44. If the reply in (41) was yes, what are your comments on such a  
system;.....
45. If your crop buyers were the same people who supply you with agricultural  
inputs, could you be ready to be supplied with inputs on credit during  
farming season on an agreement that you sell to them the yield when it comes  
to harvesting? YES/NO
46. How much have the subsidized inputs tried to reduce your production cost  
for this particular  
crop?.....
47. What do you think is the contribution of the government towards improving  
crop production in your  
village?.....
48. What are the assistance you normally get from your extension agent  
concerning crop  
production?.....
49. What is the size of land were grown with the crop( potato) in the last and the  
current season?.....

50. Do you always sell your crop produce through the same buyer?.....For how long have you been doing it.....

51. If the above(49) is yes what is your comment on your buyer's treatment to you?....*good/ very good/average/ bad/ worse*

52. According to (50) above would you recommend this buyer to other farmers?.....

Income poverty:

53. How do you rank yourself in terms of income possession in your village ?  
*High/ medium/ low*

54. Of the income you possess , which activity would consider of much contribution than others?.....

55. Does the income you get suffice the needs for your household? YES/NO

56. If the answer above is NO , what are you doing to increase your income ?  
.....

57. What are the things that you think are contributing to the state of income you are in.....

58. Do you think there is a need for the government to intervene at this point?  
YES/NO

59. How many members does your family have?.....Adults.....Children..... able to work..... in school( primary level....., secondary level....., not attended school..... )

60. What are the reasons for not attending school if there are any?  
.....

61. How much did you spent in the last year for  
 food.....Clothes.....School.....health.....con  
 struction.....other needs.....
62. How much have you spent for the current season for the above areas(61)
63. The government have launched an “Agriculture First” programme, are there  
 any noticeable changes you have noted since the launch? YES/NO
64. If the above answer is Yes, can you list the changes(  
 negative/positive).....
65. How would you rank, the agricultural market intermediaries in the sense of  
 income acquisition as compared to the farmers from where they buy crops?

**Same Level/ Higher Level/Medium/Low**

66. Is there any contribution by the agricultural market intermediaries to farmers  
 income? ...
67. How would you describe the relationship between farmers and the  
 intermediaries? **Symbiotic/Parasitic**
68. What would you suggest in order to **strengthen/ rectify** the above said  
 relationship?.....
69. According to you is it necessary to sell your crops through market  
 intermediaries? YES/NO
70. How would you consider an advice to sell your crops direct to the  
 market?.....
71. Do you consider the prices you obtain for your crop from intermediaries to be  
 fair? YES/NO

72. If the above reply is NO, What would be your suggestion to improve the prices for the crop.....

73. What would be your opinion if you were advised to change the current agricultural practices to increase market penetration and prices for the crop?.....

74. Suppose you were provided with an opportunity to sell to a more specialized market for your crop with better prices, what will be your options?.....  
.....

75. Some markets demands some special treatment for the crop in order to sell to( e.g produce organically, sorting the crop according to quality), will you be ready to change to , for your crop if they offer more better prices?  
.....  
.....

76. Some markets demands more than what you can produce and you can only enter them if you work in a group, will you be ready to join a farmers cooperative union to access such markets ? YES/ NO

77. If No. 76 is NO, Why?.....  
.....  
.....

**Part II: Questionnaire for Farm Produce Collectors**

Introduction

1. What is your name.....
2. What is your age?.....
3. What is your level of education? .....
4. What is your occupation.....
5. How long have you been in this business? .....
6. How many types of crops are you dealing with.....
7. How many family members do you have?.....  
Adults.....Children.....Schooling.....able to work.....not in school.....
8. Of the crops you are dealing with, which one would you term it to be the main for your business?.....
9. What are the reasons for the above answer.....  
.....  
.....
10. Is agriculture of any importance to your business? YES/NO
11. From your answer in (9), what is your advice to farmers.....  
.....  
.....

12. Have you ever attended some training on business administration? YES/NO,  
where/why.....  
.....

**Primary collectors**

13. What are the most preferred crops in your business  
?.....  
.....  
.....

14. Which system do you use when collecting crops from farmers? **PAY IN  
ADVANCE/ CASH ON DELIVERY/ ON CREDIT**

15. Do you use some standard measurement when buying the crops? YES/NO

16. What are the measurements used in buying  
crops.....  
.....  
.....

17. Where did you obtain your capital for this  
business?.....  
.....

18. How much were you offering in terms of price per unit for the season  
2008/09 and 2009/10 respectively?  
.....  
.....  
.....



19. What are your feelings on the above prices as you compare to the cost of producing the crops?

.....  
.....  
.....

20. Do you also have some crops that you grow yourself? YES/NO

21. If the answer is yes which crop do you farm....., If No, why don't you farm.....

.....  
.....

22. Where do you take the crops after buying them.....

.....  
.....

23. Is this business profitable? YES/NO

24. How much did you earn in the season 2008/09 and 2009/10 respectively.....

.....  
.....

25. Do you have some records on what you collected in those seasons, especially in terms of the volumes?.....

.....  
.....

26. From your earnings, what is the ratio you allocated for food.....Clothes.....construction.....school.....entertainment .....other needs.....savings.....for both seasons ?

27. What do you think are farmers feelings on your business?.....  
.....  
.....

28. Do you have a list of farmers that you treat them as your loyal customers/suppliers? YES/NO

29. If yes can you list them?  
.....  
.....  
.....

30. What are you doing to keep them with you.....  
.....  
.....

31. Do you think the government has the role to play in your business? YES/NO

32. What are things the government is supposed to perform to smoothen your business?

33. If you were asked to build a more permanent relationship with farmers what would be your comments,.....  
.....  
.....

34. Farmers normally need some information to make them aquint with the market needs, do you normally give them feedback from the market?YES/NO

35. If the above is yes what kind of information do you give farmers?.....  
.....  
.....

36. Have you ever bothered yourself to try and locate some new markets for the crop you buy from farmers?YES/NO, which are they?.....  
.....  
.....

**Agricultural inputs suppliers**

37. What are the types of inputs you supply to the agricultural sector?  
.....  
.....  
.....  
.....

38. Apart from supplying these agricultural inputs, are you also involving with other businesses? YES/NO, IF yes please mention them.....  
.....  
.....

39. Have you ever involved yourself with buying crops from farmers? YES/NO,

If yes which are the crops you were dealing with.....

.....

.....If not , are you thinking of doing it in the future?.....

40. ....

.....

41. Do you involve in provision of inputs credit to farmers? YES/NO

42. If the above reply is YES how much did you provide in the year 2008/09 and 2009/10

respectively.....

.....and how were they paid back to you.....

.....

43. If the answer is NO, why

.....

.....

44. In the Agriculture first programme, the government is insisting on subsidizing the agri-inputs, does the programme of any impact to your business?

.....

.....

.....

45. What would you suggest the government should do improve the agriculture sector as well as your business?.....  
.....  
.....

**Wholesalers/ Secondary collectors.**

46. How do you obtain the crop you buy from farmers?.....  
.....

47. Is the system you use to collect farm produce satisfy you ? YES/NO

48. Do you think farmers are satisfied with the system? YES/NO

49. Do you think there are needs to improve the system of buying crops from rural farmers? YES/NO, If yes How.....  
.....

50. Do you think there is any means to improve the farm gate prices for farmers? YES/NO

51. What are the reasons for the above answer?.....  
.....  
.....  
.....

52. Have you ever thought of looking for a more better market for your supplier of the commodity you sell ? YES/NO, Please give reason for your answer.....  
.....  
.....

53. Do you know under which system were the crop you market produced?.....  
.....

54. Is there any difference in prices when the crop is marketed under the two system of production, ie. Conventional and Organic production ?.....  
.....  
.....

55. Do you normally record complains/suggestions about your commodity as they are raised by your customers?  
.....  
.....  
.....

56. How do you communicate the above to your supplier if you think they result from them?  
.....  
.....  
.....

57. What is your opinion, if a farmer comes to you to ask for a loan to be used in the production of the commodity you do market?.....  
.....

58. What are your views about the proportion of wealth in the marketing of the crop, whom do you think gets more profit than the rest in the chain?.....  
.....  
.....and who gets the least ?  
.....  
.....

59. What contributes to the above situation.....  
.....

60. Would you suggest the above situation to continue that way ?  
.....  
.....

61. According to you, do you think the government has a role to play in the marketing of this crop? Explain  
.....  
.....

62. Of you income , how do you rank its utilization in preference?.....  
.....

**Part iii: Questionnaire For Farmers' Capacity Builders**

Introduction;

1. What \_\_\_\_\_ is \_\_\_\_\_ your name?.....Age.....Sex.....
2. What is your occupation?.....Education.....
3. When were you employed/ self employed.....
4. Where is your area of responsibility?.....

**Transporters:**

5. What is the proportion of potato loads as compared to other items that you transport?.....
6. What is the contribution of potato crop on your earnings in the business?.....
7. Of the stakeholders in the marketing of round potatoes, who do you think is the most beneficiary?.....  
.....
8. What are the barriers in the transportation industry in general if any?.....  
.....
9. Specifically, what are the barriers in transporting round potatoes?.....  
.....



10. Are there areas in your business where you think they need government intervention? If Yes, which ones?.....  
.....

11. Of the barriers to your business which one do you think emanates as government's responsibilities?.....  
.....

12. What would be your suggestion in solving the aforementioned problems?.....  
.....

13. Is there any way that you think you can assist farmers in getting better prices for their crop? Yes/No ...How/ Why ?  
.....  
.....

14. Buyers of agricultural produce mostly complain of higher transport costs, what are your views?.....  
.....

15. What are the truck's operation costs per month?.....  
.....

16. What are the estimated costs of maintenance per trip?.....

17. What are other overhead costs in transportation industry?.....

**Government officials:**

18. What is your feeling on the process of marketing round potato at the farm level?.....  
.....

19. Do you think marketing of field crops especially potatoes is done fairly on all parties involved? YES/NO, if yes what are the areas that needs to be copied to other crops?.....  
.....  
.....If no, what are the weaknesses ?  
.....  
.....

20. Is the marketing system for the crop following the government regulations about marketing crops? YES/NO

21. What are the government regulations about marketing field crops at the farm gates ?.....  
.....  
.....

22. Who is particularly supposed to enforce the regulations and make sure that they are followed in the area? .....

23. How much do you think farmers are satisfied by the role played by the government in marketing their crops?.....  
.....  
.....

24. Different taxes on crops are said to contribute much on the prices the farmers are given , what are your opinions?.....  
.....  
.....

25. How much does the government earn from farmers activities in this area?.....  
.....  
.....

26. How much land in the area is under the production of round potatoes?.....

27. What is the contribution of this crop to the wealth of the people in this area ?.....  
.....

28. What is the average volume per acre does a farmer harvest from this crop ?  
.....  
.....  
.....

29. What is the average earning from this crop per household in the area?.....

.....

30. How do you compare the contribution of the crop to the wealth of farmers in the area in the current farming season to the past ?

.....

.....

.....is there increase or decrease, .....if increase does it result from increased farming area or increase in prices, and if decrease what are the reasons for decrease?

.....

.....

31. What are your views on government participation, has it exhausted its role in the war against poverty in the rural area?.....

.....

.....What would you suggest.....

.....

.....

32. When you look on the market intermediaries, would you say they play fairly when marketing this crop?

.....

.....

.....

33. What would you advise market intermediaries on their business?

.....  
.....

34. Do you think the government has a part to play in order to bring a more convenient relationship between farmers and the market intermediaries?

.....  
.....

35. There is an issue about market education to the farmers; is this among the task the government needs to facilitate?

36. How far has the government gone in improving the above said knowledge to rural

farmers?.....  
.....

**Info-mediaries:**

37. In which type of info-mediary do you belong? Newspaper/Radio/Other.....

38. Name of the organization.....

39. Duration of operation.....

40. Area of coverage.....

41. Target of operation.....

42. What are the main objectives for the organization?.....

.....  
.....

43. Do you think your services are being enjoyed by people in the rural areas?

**Yes/No**

44. Have you ever conducted any survey to see how the rural population benefit from your service? **Yes/No**

45. If the above is Yes, What were the main comments from your clients?

.....  
.....

46. If the above is No, Do you plan to have a survey at least to get the picture of the requirements from rural population? **Yes/No**

47. Is the provision of agriculture market education to rural farmers included in your programs? **Yes/No**

48. If the above is Yes, How is the program being conducted?.....

.....

49. If the above is No, do you consider having it included in your program?

**Yes/No, When/Why**

.....

50. Do you think it is possible to include in your services a periodical report about Agricultural products market prices(actual) from various market places in the Country? **Yes/No**

**Weight and Measures (Weigh Bridge)**

51. What is the average (actual) Net Weight of a ten ton Lorry carrying Irish potatoes?

.....

52. How many Bags of potatoes are in the same lorry? .....
53. What does a bag of Irish potato on average weigh? .....
54. Legally what is the proper acceptable weight for standard bag? .....
55. Is there any law that binds transporters if found carrying potato bags that weigh more than the above suggested weight? **Yes/No**, If yes can you state.....
56. On your routine work do you normally undergo detailed check on weight of sampled bags from the Lorries passing here? **Yes/No**
57. If the above is No, Why?  
.....  
.....
58. If Yes, what action do you take if you find the bags are above legal weight?  
.....  
.....
59. Have you ever head the complains from farmers about the improper measurements of the bags collected at farm level crop buyers? **Yes/No**
60. Do you think you have the role to play in this , such that farmers can get this problem solved ? **Yes/No**
61. If the above is Yes,  
How.....  
.....
62. If the above is No, Whose responsibility is this( on your views)  
.....  
.....

63. Do you think your customers are satisfied by the services ? **Yes/No**

64. If the answer above is No, give reasons.....  
.....

65. Transporters are complaining of inconsistence on your scale, what are your comments on such feeling?.....  
.....

66. What are the differences between your weght balancing machine and the ones from the private owners?  
.....  
.....

67. Which one are more reliable? **Public / Private**

68. In relation to the answer above what are your advices to transporters?  
.....  
.....

**At The Kariakoo Market in Dar –es-Salaam:**

**Kariakoo market officials**

1. Name.....Gender.....Age.....
2. Position.....
3. Qualification.....  
.....



4. What are the procedures for one to sell his/her produce at the market?.....  
.....
5. Who sets prices for commodities brought at the market ?.....  
.....
6. Is it possible for an individual from rural farming point to bring his/her produce direct at the market?.....
7. If the above(6) is positive, why then there are brokers ?.....  
.....
8. Are the brokers/agents registered to the market authority?.....
9. Does the market authority regulate the prices for all commodities at the market?.....
10. Are there any ways of recording the performance of various commodities at the market?
11. Of the agricultural commodities, which one is regarded as best performer in terms of prices? .....
12. What happens to perishable goods when they are oversupplied?.....  
.....  
.....

13. Is there any way of preserving goods such as irish potatoes such that they can stay for longer?.....
14. Is there a way of identifying the place of origin of the agricultural produce supplied to the market?.....
15. Is there a way of checking and verifying the quality and quantity supplied?.....
16. Are there standards that agricultural produce suppliers are required to meet for their produce to be marketed at the market?...Yes/No
17. If (16) is yes, what are the standards for Irish potato crop?.....  
.....
18. Are there means of recording customer complains?.....
19. Is there a way of communicating the complains from customers to producers? How?.....  
.....
20. Is it possible for farmers to access the information about current commodity market prices? Yes/No
21. If (20) is yes, How?.....
22. How does the Market authority ensure fair trade on its premises?  
.....  
.....
23. What is the market demand for irish potato for 2008/09 and 2009/10.....

24. Is it possible to have the quantities of supplies from agricultural sources for round potato ? Yes/No

25. Is it possible to identify the different potato quantities as they are supplied from the respective sources? Yes/No

26. How many Irish potato sources do supply the produce at the market?.....

27. What are the respective quantities from the sources mentioned above.....  
.....  
.....for 2008/09 & 2009/10 seasons.

28. What are the indications at the market, does it need more supply of the crop? Yes/No

29. If the above is Yes, what are the quantities required to satisfy market demand?.....

30. Does the customers show favourite to the crop in terms of varieties? Yes/No

31. If (30) is yes which variety is mostly favoured?.....  
.....

32. How many varieties of the crop are normally supplied at the market?.....can you list them.....  
.....  
.....

33. Does the market re-supply the commodity to other markets?..Yes/No

34. If (33) is Yes, which are the other markets, please list them.....  
.....

35. What makes the above markets to buy from you.....  
.....

36. What is the contribution of Irish potato crop to the earnings of the Market authority...

37. Are there known organizations that act as intermediaries to supply round potato crop to the market? Yes/No

38. If (37) is yes list them.....  
.....

39. If (37) is No, is there any plan to establish such a system?

**Brokers/Agents**

40. Name.....

41. Age.....Gender( Male/female)

42. Business experience.....

43. Specialization.....

44. Are there other side business that you do perform apart from this? Yes/No, If yes can you list them?  
.....

45. How much is your earning per year?.....
46. What is the share contribution of round potato crop to your earning?.....
47. How much potato did you market for the season 2008/09.....and for 2009/10.....
48. How much do you charge per bag you market?.....
49. Is there any fee that you usually pay to market Authority per bag you market?.....
50. What is your feeling on the fee that you pay.....**Satisfactory/needs adjustment/unfair**
51. Can you give reasons for the answer in (47).....  
.....
52. Which area of production do you think produces more marketable potatoes?.....
53. What are the features that make the above product more marketable than the rest from other sources?.....  
.....
54. Are there any advices you can give to farmers in the producing areas?.....  
.....
55. As agents/brokers, do you normally work as an organization or as an individual? **Organization/ Individual**

56. If (55) is Organization, how far is the organization's network spread?.....

.....

57. If (55) is at Individual basis, why is it so?.....Are there any plans to form an organization such that the services you provide can be broadened?.....

.....give reason for either answer.....

.....

58. As intermediaries between farmers and the market how do you work with farmers to help them secure more reliable prices?.....

.....

.....

59. As an intermediary, do you specifically represent a certain group of farmers at the market? **Yes/No**

60. If (59) Is Yes, how many groups..... Where are they located?.....

.....

61. Why did you choose to represent the above groups of farmers?.....

.....

.....

62. How did you identify the above groups?.....

63. Do you have contract signed that guide your relationship with the farmer-  
groups you represent? .....

64. If (59) is No, would you consider to specifically represent certain groups of  
farmers at the  
market?.....

**Retailers**

65. Name.....Age.....Sex....

66. For how long have you been in the business.....

67. Is round potato a sole product that you sell? **Yes/No**

68. What are the reasons for the answer in .....  
.....

69. How many varieties of round potato do you normally sell?.....mention  
the varieties?  
.....  
.....

70. Of the above varieties, which one is the  
preferred?.....

71. Where are the varieties specifically  
produced?.....  
.....  
.....

72. What would you comment on the product availability?.....
73. Do you normally record complains from your customers?.....  
.....
74. Who are your esteemed customers?.....  
.....
75. Is the trading of Irish potato profitable? **Yes/No**
76. How much do you earn from the crop per year?.....
77. What are your selling prices per unit?
78. What is the unit of measurement that is used in marketing the product?
79. Do you get supplied from the market or directly from farmers?
80. Give reason for the answer above, why not the other option?.....  
.....
81. Do you have any comments concerning the packaging of the crop? Yes/No
82. If the above is yes, what are those;
83. Do you think the present marketing system of the crop is in favor of the farmers? .....
84. Are there any other additional comments?  
.....