

Effectiveness of Collective Action/Farmer Organization in Improving Smallholder Producers Access to Capital:

**A Case Study of Msalala Paddy Farmers' Company (MPAFAC),
Msalala District, Shinyanga Region, Tanzania.**

Final Report By:

Oludayo C. Olawale

Dr Ismail Azeez

(Academic Supervisor)

Leonard Muhoni

(On-Site Supervisor),

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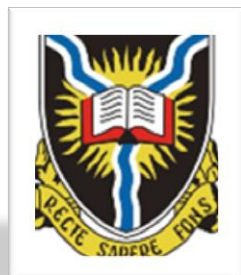


TABLE OF CONTENTS

LIST OF ACRONYMNS	4
ABSTRACT:.....	5
DEFINITION OF CONCEPTS:.....	6
CHAPTER ONE: INTRODUCTION.....	8
1.1 BACKGROUND TO THE STUDY	8
1.2 PROBLEM STATEMENT:	13
1.3 RESEARCH QUESTIONS:.....	14
1.4 OBJECTIVES OF THE STUDY:.....	14
1.5 RESEARCH HYPOTHESES:	15
1.6 JUSTIFICATION/SIGNIFICANCE OF THE STUDY:.....	15
CHAPTER TWO: THEORETICAL FRAMEWORK AND LITERATURE REVIEW	17
2.1 REVIEW OF CONCEPTUAL FRAMEWORK AND THEORY	17
2.2 REVIEW OF EMPIRICAL STUDIES	18
CHAPTER THREE: METHODOLOGY	36
3.0 METHODOLOGY.....	36
3.1 THE STUDY AREA.....	36
3.2 NATURE AND SOURCES OF DATA.....	37
3.3 METHODS OF DATA COLLECTION	37
3.4 ANALYTICAL METHODS/TECHNIQUES	39
CHAPTER FOUR: RESULTS AND DISCUSSION OF FINDINGS	39
4.1 SOCIO-ECONOMIC CHARACTERISTICS OF RESPONDENTS	39
4.2 RESEARCH OBJECTIVE 1:	42
4.3 RESULTS BASED ON RESEARCH OBJECTIVE 1:	42
RESEARCH HYPOTHESIS 1:	45

RESEARCH HYPOTHESIS 2:	46
RESEARCH HYPOTHESIS 3:	47
4.4 RESEARCH OBJECTIVE 2:	50
4.5 RESULTS BASED ON RESEARCH OBJECTIVE 2:	50
4.6 RESEARCH OBJECTIVE 3:	60
4.7 RESULTS BASED ON RESEARCH OBJECTIVE 3:	60
RESEARCH HYPOTHESIS 4:	62
4.8 RESEARCH OBJECTIVE 4:	65
4.9 RESULTS BASED ON RESEARCH OBJECTIVE 4:	66
4.10 RESEARCH OBJECTIVE 5:	67
4.11 RESULTS BASED ON RESEARCH OBJECTIVE 5:	67
CHAPTER FIVE: SUMMARY OF FINDINGS	69
5.1 CONCLUSION	72
5.2 RECOMMENDATIONS:	74
5.3 INDIVIDUAL:	74
5.4 MPAFAC:	75
5.5 GOVERNMENT:	76
REFERENCES:	78
APPENDICES:	85

LIST OF ACRONYMNS

- AfDB: African Development Bank
- ASDP: Agricultural Sector Development Programme
- ATI: Agricultural Transformation Initiative
- BoT: Bank of Tanzania
- BRELA: Bureau of Registration and Licensing Authority
- CA: Collective Action
- EAC: East Africa Countries
- FAO: Food and Agriculture Organisation
- FO: Farmers' Organization
- IFAD: international Fund for Agricultural Development
- ILO: International Labour Organisation
- Paddy: A wetland crop that is often interchangeably expressed as Rice (Seed of Paddy), the rice grain (*Oryza sativa*) with husk usually threshed and unmilled
- MIVARF: Marketing Infrastructure, Value Addition and Rural Infrastructure
- MPAFAC: Msalala Paddy Farmers' Company
- NSGPR: National Strategy for Growth and Poverty Reduction
- OECD: Organisation for Economic Cooperation and Development,
- RFSP: Rural Finance Services Programme
- SDG: Sustainable Development Goals
- SEIDA: Small Enterprises Institutional Development Associates
- SPSS: Statistical Package for the Social Sciences
- UDHR: Universal Declaration of Human Rights
- URT: United Republic of Tanzania
- VFT: Vision Fund Tanzania Microfinance Bank
- VICOBA: Village Community Bank
- VSLA: Village Savings and Loans Association

ABSTRACT:

Poverty prevalence in Tanzania, especially among smallholder farmers is becoming a threat to food security and sufficiency; thus underscoring the importance of the agricultural sector that contributes up to 85% of Tanzania's export earnings. The modest achievements recorded have not been able to keep pace with the rapid rise of consumer demand. As the largest producer and consumer of Rice in East Africa, its cultivation is majorly undertaken by peasants and smallholders with worrisome and limited access to financial services amidst preponderance of rural poverty; across Msalala District of Shiyanga Region. One of the ingenious way-out is Collective Action (CA) approach through Farmers' Organization (FO) to improve the livelihood, income and assured food security of members.

This study affords an exposition into the benefits of being a member of FO; and extent of membership to enhancement /improvement of access to capital. It also examines the roles, business model, and without losing sight of requisite conditions and synergies required to access capital facilitated by the FO under focus; including identification of bottlenecks and constraints in credit access provision drive. The research design and instruments deployed includes Structured Questionnaire, Key Informant Interview and Secondary Data Sources. The results affirmed the crucial importance of capital to members; involvement and dominance of the female gender in *Paddy* cultivation, and unalloyed membership loyalty (with or without credit access provision) to FO. Other crucial requisites required in access to capital drive were identified; together with the bottlenecks and constraints involved with strong policy recommendations.

Key Words: Collective Action, Farmer Organization, Access to Capital, *Paddy*.

DEFINITION OF CONCEPTS:

The import of a study as this may not be appropriately appreciated without a concise definition and clarifications of some basic concepts that featured prominently in the study and in order to reduce the instances of ambiguity over them. Such featured concepts include the under-listed:

(a) Collective Action:

This refers to “action taken by a group either directly or indirectly in pursuit of members’ perceived shared interest.” (Gyau A *et.al*, 2012)

(b) Farmer Organization:

An entity by farmers with “defined membership, purpose for assembling and organizational structure, established to support members in pursuing their individual and collective interests.” (www.slideshare.net/MEASI/June-4-at3-pm-simpson-and-franzel-definitionfbo-and-f2-f)

(c) Smallholder:

A farmer cultivating between 0.5 to 2.5 acres of farmland, using traditional methods to plough the land; poor and usually food insecure; with limited access to markets and related services

(d) Capital:

Any form of wealth employed or capable of being employed in the production of more wealth, such as money, seed and other agricultural farm inputs crucial of assuring livelihood

(e) Paddy:

Paddy is the rice grain (*Oryza sativa*) with husk, a wetland crop that is often interchangeably expressed as Rice (Seed of Paddy), usually threshed and unmilled.

(f) MPAFAC:

The acronym for Msalala Paddy Farmers Company, a registered farmer organization comprising of a total of 40 Producer Groups actively involved in the cultivation of *Paddy* across the Msalala District Council of Shinyanga.

(g) MIVARF:

Acronym for Marketing Infrastructure, Value Addition and Rural Finance; a Tanzanian Government Agency offering a 7-year intervention programme aimed at enhancing incomes and

food security of target groups in 29 Regions across Tanzania and some selected 73 Local Government Authorities.

CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Farming and agricultural practices occupies a prime place in ensuring man's well-being and survival. Food as one of the end-products of farming activities, and one of the basic necessities of life; therefore occupies an enviable position that could not be neglected, as its increased production is pertinent in a world currently in a race to "end hunger, achieve food security, improved nutrition and promote sustainable agriculture" (United Nations, 2015), This is also pertinent in a world plagued with poverty; where since year 2015, the United Nations Organisation (UN) under the Global Goal Number 1 of the "Sustainable Development Goals (SDGs) has been waging a global battle to "end poverty in all its forms everywhere."

In Tanzania, just like most African countries, agriculture is the mainstay of the economy, employing about 66% of the workforce, and contributing up to 85% of her export earnings (CIA World FactBook, 2018). The agriculture sector is extremely diverse, with crop production, livestock and other natural resources accounting for about 55%, 30% and 15% of the nation's agricultural GDP, respectively (Larsen et al. 2009). With an estimated population of over 50.1 million people in 2016 (Tanzania National Bureau of Statistics, 2016), Tanzania remains the largest and most populous East African country with extremely uneven distribution, and with greater clusters in the northern half of the country and along the east coast. According to FAO (2015), approximately 73 per cent of Tanzania's population lives in the rural areas.

Agriculture as a key sector in Tanzania, is quite dynamic with ownership of all land completely vested in the Government. The sector provides employment to more than 70% of the population, while about 70% (ILO, 2017) of Tanzanian women are employed in the sector. As in most East Africa Countries (EAC), Maize remains the most prevalent staple food in Tanzania, while other regularly cultivated crops include, rice, cassava, sweet potatoes, bananas, sorghum and sugarcane. Tanzania is also the largest producer and consumer of rice among the East Africa Countries (EAC), with annual consumption standing at approximately 1.18million MT, representing nearly 65% of EAC production (KilimoTrust, 2014)

In spite of the impressive credentials of the Country in agriculture, the cumulative potentials offered by agriculture remain largely unexplored, especially judging from the level of poverty

pervading the Country, which is estimated as affecting about 33.3% of the rural population (Tanzania National Bureau of Statistics, 2016). The Organisation for Economic Cooperation and Development, OECD (2018), reported only about 23% of Tanzania's arable land as being under cultivation, with the sector dominated by smallholder farmers estimated by the FAO (2015) at about 3.7million and occupying 80 percent of total farmland. The FAO (2015) further estimated that about 19 million people live and farm in these smallholdings.

A number of policy measures have been reportedly put in place to remedy this ugly trend by the Government of the United Republic of Tanzania, the Organised Private Sector and the Civil Society in order to realize Tanzania's great agricultural potentials. One of such is the "*Kilimo Kwanza*," (Agriculture First) initiative spearheaded by the Private Sector Operators; and endorsed by the Tanzanian Government since 2009 to reinvigorate the agricultural sector. The Agricultural Sector Development Programme (ASDP) of the Tanzanian Government since 2006 to 2016 was part of the Government's "*Mkukuta*," a wider National Strategy for Growth and Poverty Reduction (NSGPR). Also, to enhance Tanzania's march to food security and self-reliance, a National Rice Development Strategy has been put in place to double rice production and possible surplus for export by the year 2018. According to Global Agricultural Information Network Report (2017), this "strategy aims to improve seed cultivars and input supply, the availability of irrigation, marketing, research and development, and agricultural credit".

It is to foster these drives that the Government of the United Republic of Tanzania (URT) in collaboration with the International Fund for Agriculture Development (IFAD) and the African Development Bank (AfDB), is implementing a seven-year (2011-2017) Marketing Infrastructure, Value Addition and Rural Finance Support (MIVARF) Programme. The programme is upscaling best practices and lessons drawn from the Agricultural Marketing Systems Development Programme (AMSDP) and Rural Finance Services Programme (RFSP) of the Tanzanian Government (SEIDA, 2017).

The MIVARF programme goal is to enhance "incomes and food security of the target group on a sustainable basis," and "focuses on improving access to markets and financial services for the rural but economically active poor" across gender divides. The programme is aligned with other National Development Strategies (including the 2001 Agricultural Sector Development Strategy, ASDS); that envisaged an "Agricultural sector, which by 2025, will be modernized and

commercial, highly productive and profitable as well as utilize natural resources in a sustainable manner.”

The MIVARF Programme is also fully aligned with *Mkukuta II* - a vehicle for realizing Tanzania’s Development Vision 2025, the Millennium Development Goals (MDGs) and *Mkuza II* - the Zanzibar Strategy for Growth and Reduction of Poverty: 2010-2015, deployed to realize improved living standards and strengthen good governance. It is a successor to the (2007-2010) Zanzibar Strategy for Growth and Reduction of Poverty. Under MIVARF, the 5 goals in Cluster 1 of *Mkukuta II* that aimed at enhancing growth for reduction of income poverty were being vigorously pursued; as well as the 10 Pillars of *Kilimo Kwanza* (Tanzania’s national resolve to accelerate agricultural transformation) through her Agricultural Transformation Initiative (ATI) modelled to bring the up small scale farmers into the mainstream of modern and commercial agriculture economy.

The implementation of MIVARF activities is governed by “Demand-driven and competition for resources approach, where Districts, Local Government Authorities are qualified to participate in the Programme upon meeting specified eligibility criteria. Such criteria include:

1. Willingness to contribute to the cost of the priority activities for the District
2. Putting into practice, the best practices and lessons learned from the previous programmes (AMSDP & RFSP)
3. Approaches on Ownership, Commitment and eventually, Sustainability of the Programme activities after the Programme Direct Intervention moves to an end.

The task of ending hunger and poverty eradication requires concerted efforts of Government, Non-Governmental Organisations (NGOs) and individual members of the society. At the individual level, sustained daily efforts are required to fill the food production gaps in order to achieve food security and adequate nutrition for all.

The right to freedom of association is every individual’s inalienable right, enshrined and safeguarded in the Constitution of the signatory Countries to the charters of the Universal Declaration of Human Rights (UDHR). It emphasizes that “No one may be compelled to belong

to an association” (United Nations, 1948). Article 23, sub-section 4 further emphasized that “everyone has the right to form and to join trade unions for the protection of his interests,” in order to ensure for himself and his family an existence worthy of human dignity.

The import of the right to association is being significantly played out daily, for instance, in the crop farming sub-sector of Agriculture and its allied sub-sectors across the globe. In Tanzania, a number of factors could possibly have inspired the formation of the several farmers’ organization across some 31 Regions and 73 Local Government Authorities within MIVARF intervention programme. What is paramount however is the opportunity of an enhanced access to the markets that such Farmers Organization stands to deliver to their members and the improved quality of life that results from an enhanced income.

At the local coverage level of this study, Msalala District Council is one of the 6 Councils of the Shinyanga Region collaborating with the Marketing Infrastructure Value Addition and Rural Finance (MIVARF). It is the home to the Msalala Paddy Farmers Company (MPAFAC), one of the several Farmers’ holding and business entities under the MIVARF Programme covering only some 73 Local Government Authorities in the United Republic of Tanzania. MPAFAC is a mono-cropping Company of Paddy (Rice) Producer Groups and represents business interests of all the Producer Groups. It came into existence officially in March, 2015.

As at the end of the 2017 Farming season, MPAFAC has a total of 40 Producer Groups comprising of about 44% (503) Males and about 56% (643) Female farmers spread across the 6 Wards of MIVARF Pilot Areas in Msalala District Council (See Appendix 2). The Pilot areas are: Kashishi, Bulige, Ntobo, Busangi, Chela and Segese.

While it is a truism that a number of reasons could have accounted for the formation of a farmer organization, the pertinent purpose for the establishment of MPAFAC was aptly captured by SEIDA that reported the “issue of low production volumes, poor access to timely seeds, fertilisers, high interest rates of banks, poor prices and quality of rice produced” as amongst the issues that members in the various Production Groups started with. In the words of SEIDA, “the actors lacked a bridge to make them cooperate and address their individual production, quality and markets constraints.”

SEIDA observed further that MPAFAC “members took the problems as theirs and required each participating actor to address the challenge within his or her domain.” It was such that Msalala District Council “participated as regulator and this helped in shaping thinking of platform members by emulating business principles and ethics.” Therefore, it was against this background that the Producer Groups finally came with the idea of a Farmer’s Company “to be able to enter understandings with the Banks and input providers on behalf of their members.” Today, MPAFAC has been institutionalised to represent interests of Producers and also have a Memorandum of Understanding (MoU) with Association of Millers (*UWAMA*). MPAFAC therefore is that innovation platform for Paddy that has been established and nurtured in the course of the programme implementation and involved all the key actors as well as some of the government departments in Msalala.

From the foregoing, it remains abundantly clear that a large majority of MPAFAC’s Producer Groups members are smallholder farmers and actively involved in the planting of Paddy (Rice) on a farmland size of between 0.5 and 5 acres to assure reasonable food security for the family and assured income to meet some livelihood requirements. Among the numerous challenges peculiar to the smallholder farmers in Tanzania is the limited access to financial services, and the preponderance of rural poverty.

While a number of Farmer Organizations for smallholder farmers are embracing collective action approach to improve members’ livelihood, income and assured food security, some others have been established to offer advocacy and support services that lessens the burden and constraints of smallholder farmers. Therefore, the place of collective action in the resolution of any developmental challenge can never be overemphasized, especially in improving smallholder producers’ service delivery and operational efficiency, which could hardly be ignored.

MIVARF through MPAFAC seems to be achieving this “through an enhanced access of poor rural households to a broad range of financial services, coupled with financial literacy and entrepreneurship capacity building, value addition and market linkages.” All of these are to be achieved through “sustainable and profitable linkages to markets whereby beneficiaries will derive profits from production and value addition undertakings.”

By June 2016, MPAFAC was reported to be working with “a total of 1,195 smallholder farmers from 41 Paddy Producer Groups who brought a total of 2,447 acres under production; with yields

of 9,872.79 metric tonnes of rice and earned an income of TZS11,846,400,000/ (Eleven Billion, Eight Hundred and Forty-Six Million, Four Hundred Thousand), equivalent of USD 5,384,722,727.”

Similarly, through robust engagements with a major Microfinance Bank found in Kahama Town Council, Vision Fund Tanzania (VFT) Microfinance Bank, it is on record that financial linkages for access to production inputs have been established. SEIDA reported a total of “280 Individual Producers as having received loans amounting to TZS75,050,000/ (Seventy-Five Million and Fifty Thousand) from Vision Fund Tanzania, while the total amounts of loans received from Groups own Savings Scheme is worth TZS209,043,749/ (Two Hundred and Nine Million, Forty Three Thousand, Seven Hundred and Forty Nine); which shows that the beneficiaries only resorts to external borrowings as a top-up in meeting increased financial needs; but their confidence is within their own schemes,” – the Village Savings and Loans Association (VSLA).

1.2 PROBLEM STATEMENT:

In Tanzania, the modest achievements recorded in Agriculture have not been able to keep pace with the geometric increase in consumer demand, and thus unable to stem importation of crops. The FAO (2015) has projected demand for rice to triple by 2020 (from 1.15 million tonnes in 2009, to 2.84 million tonnes in 2020). The trends are expected to continue beyond 2025; while with the anticipated growing domestic demand, it is envisaged that Tanzania will find it difficult to produce a surplus for the export market. Rice in Tanzania still has its production occurring on smallholder farms that rely on family labour, and with increasingly poor access to the much-needed capital to enhance production.

The growth rate of agriculture in Tanzania has been at an average of 4.3% for the 2000–2012 period, and at about 3.2% in the second quarter of 2016; much slower than the rates of growth for industry and services estimated at 8% between 2012 and 2017 (Tanzanian National Bureau of Statistics, 2017). The slow growth rates in agriculture has led to persistence high rates of rural poverty: as agricultural production declined, food prices increased at about 12% per annum on average, and with an unmet demand for foods giving rise to importation of cereals and other foods.

A number of Farmer Organizations for smallholder farmers have been established in Tanzania; with special focus on embracing collective action approach to improve the livelihoods of members through income and assured food security; including advocacy and support services that lessens the burden and constraints of smallholder farmers. In spite of the proliferation of such farmer organizations, the fate of rural farmers especially on access to capital is not assured in the study area of Msalala District and the entire Shinyanga region of Tanzania. Therefore, the identification of the limiting factors of farmers to access credit, farm inputs, market information, and market infrastructures would go a long way to ameliorate the worsening poverty level, promote the livelihood of the smallholders and confer goodwill on the Farmer Organisation championing the course.

1.3 RESEARCH QUESTIONS:

Arising from the foregoing, it becomes pertinent to ask the following fundamental research questions related to the study:

1. Are there benefits of MPAFAC membership and extent of membership impact on access to smallholder farmers' capital?
2. What are the roles of MPAFAC as a Farmer Organisation, her business model, and contributions to value additions at various stages of production?
3. What are the requisite conditions and synergies required of smallholder farmers to access capital facilitated by MPAFAC?
4. What constitutes the roles of other stakeholders (Processors, Marketers and Banks) in access to capital?
5. Are there identifiable bottlenecks, constraints and challenges confronting Farmer's Organization members in their quest to access capital?

1.4 OBJECTIVES OF THE STUDY:

This study was designed to assess the effectiveness of collective action/Farmer's Organization at improving smallholder producers access to capital, using the case study of Msalala Paddy Farmers Company in Msalala, Shinyanga region of Tanzania. The specific objectives include to:

- a) ascertain the benefits of MPAFAC membership and extent of membership impact on access to smallholder farmers' capital

- b) examine the roles of MPAFAC as a Farmer Organisation, her business model, and contributions to value additions at various stages of production
- c) identify requisite conditions and synergies required of smallholder farmers to access capital facilitated by MPAFAC
- d) assess the roles of other stakeholders (Processors, Marketers and Banks) in access to capital
- e) identify bottlenecks and constraints to MPAFAC credit access provision drive

1.5 RESEARCH HYPOTHESES:

To give the much-needed impetus to this study, and confer a significant level of depth to the scope of this exercise, it has become imperative to test for the following *Null* hypotheses:

H₀: There is no significant relationship between gender of respondents and help received in access to capital

H₀: There is no significant relationship between dominant gender group and income level as a smallholder farmer

H₀: There is no significant relationship between dominant gender group and help received in access to capital

H₀: There is no significant relationship between education attainment and income level as a smallholder farmer

1.6 JUSTIFICATION/SIGNIFICANCE OF THE STUDY:

There seems to be divergence of opinions on the place, status and roles of agricultural practices in Tanzania, and by extension in Msalala, the study area of this research work. However, what is of utmost importance is to properly situate, and in the right context too, actions aimed at reversing the fortunes of smallholder Paddy farmers as initiated by *MIVARF* and anchored for implementation by *MPAFAC* through her Producer Groups. It is in the light of this that the following justifications could be made to buttress the importance of this Study on the

effectiveness of Collective Action/Farmers' Organization in improving smallholder producer access to capital in Msalala:

This study is the first of its kind to be undertaken in assessing the effectiveness of Collective Action in improving smallholder producer access to capital in Msalala District, Shinyanga region of Tanzania. It is hoped that findings and conclusions from the Study shall offer expositions and useful insights into the activities of MPAFAC in the 3 years of its formation, especially in meeting extant and future yearnings of its teeming members to access capital now.

In support of the widely held view of poor access to credit as militating factor to smallholder farmer's productivity, this study shall offer new perspectives in the appraisal of capital, its sources, utilization and its other manifold dimensions as it affects the worsening financial conditions and low productivity of the smallholder producer in the study area.

In order to proffer sound and relevant solutions that could enhance access to capital by smallholder producer, this study shall provide a better understanding of the constraints undermining access to capital among the smallholder producer, especially against the avalanche of financial service providers available in the study area; and the wide-range of services offered.

With useful insights and facts coming from the study, the outcome of this study is expected to positively influence current policy directions by Government (at the various levels), the Non-Governmental Organizations and other Stakeholders towards enabling sustainable and profitable linkage of the smallholder farmers in the study area to the markets.

CHAPTER TWO: THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 REVIEW OF CONCEPTUAL FRAMEWORK AND THEORY

The conceptual framework adopted for this study is such that explains the symbiotic relationship that exists between the identified different variables of this study that comprises of:

- i. MPAFAC Membership
- ii. Improvement in Value Addition, and
- iii. Access to Capital

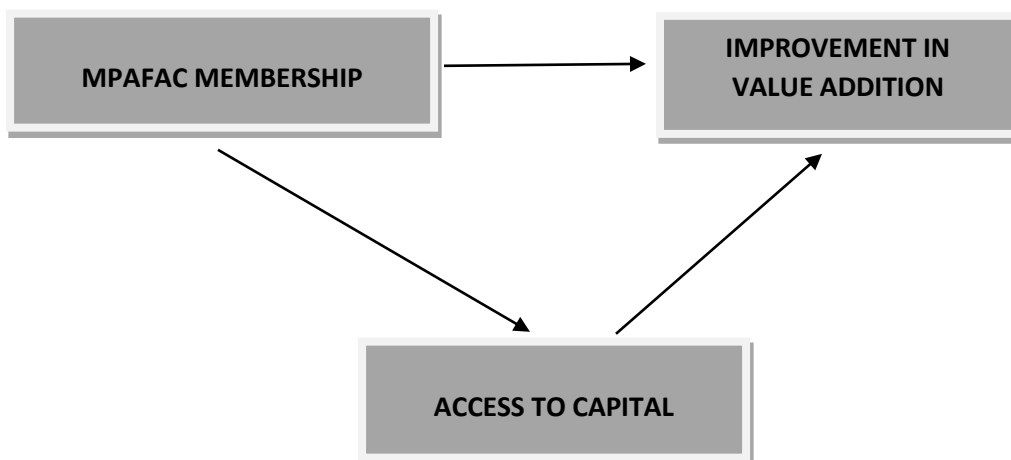


Figure 1: Conceptual Framework for the Study

The framework shows the synergy that exists between being a member of MPAFAC and the consequent Improvement in Value Addition (of the produce and standing of such member). It is also such that MPAFAC Membership enhances such member's Access to the much needed Capital to further and expand his *Paddy* production capacity. With the assured access to capital comes also a cumulative improvement in Value Addition and competitiveness of the produce to improve and increase the income streams of such smallholder MPAFAC member.

From the foregoing framework, MPAFAC Membership is the Independent Variable (IV) while both Value Addition and Access to Capital respectively are the Dependent Variables (DV) of the study. Similarly, in another contextual situation; Access to Capital could assume the status of an Independent Variable (IV), while Value Addition becomes its Dependent Variables (DV). From another perspectives and ultimately, Access to Capital could serve both as a Dependent Variable (in the first scenario) and also assumed the toga of an Independent Variable (in the second circumstance).

The Social Exchange Theory is one of the many theoretical perspectives to be used in offering an analytical understanding of the phenomenon of capital and its access. As propounded by George C. Homans (1961), the Social Exchange Theory proposes that social behavior is the result of an exchange process; where the purpose is to maximize benefits and minimize costs. This theory presupposes that “people weigh the potential benefits and risks of social relationships,” such that when the risks outweigh the rewards, the likelihood of such relationships to be terminated or abandoned is real.

This Theory envisaged a type of “give-and-take” relationship that is skewed and unequal among the actors; where “it is the valuing of the benefits and costs of each relationship that determine whether or not to choose to continue a social association.” The costs involve things as money and efforts into a relationship, while the benefits are things derived from the relationship. The Theory suggests that we essentially take the benefits and subtract the costs in order to determine how much a relationship is worth. Positive relationships are those in which the benefits outweigh the costs, while the negative relationships occur when the costs are greater than the benefits.

2.2 REVIEW OF EMPIRICAL STUDIES

Just like the proverbial dictum that acknowledges that fingers are not all equal, the emergence and the reality of smallholder producer activities and their operations attests to the inequality that pervades the human race. Across all stages of human evolution and development, the distinction has always been evident along many criteria, including the use of such concepts as the large holder producers and the smallholder; to separate men from the boys.

Various definitions have been offered in the literature by scholars on the concept of smallholder, but have been unable to offer a generally accepted definition of what constitutes “small farms”

and “smallholder agriculture.” According to the World Bank’s Rural Development Strategy (2003), smallholders are defined by their low asset base and operate on less than two hectares of cropland. In the opinion of Douglas Gollin (2014), definitions have been mostly offered “in terms of the land area of the farm, the number of workers, the value of output, or the value of asset holdings.” He asserted further that “a definition based on land area does not necessarily make sense for a commercial poultry or dairy farm that may produce very high values with essentially no land.” This suggests that land measurement criterion may also overstate the ‘farm size’ of a herder.

FAO (2015) while reviewing the economic lives of smallholder farmers from nine Countries affirmed the difficulty in coming to a “unique and unambiguous definition of a smallholder,” and opined that its definition may be disputed because its analysis “focuses more on bottom of the distribution of farm size – the smallest of the small.” The attraction of their definition was to “those who are more likely to be subsistence farmers and poor” and revealing their different behavior from other farmers “in many aspects of their lives.” This position was also upheld by Dixon, J. *et al.* (2003) who also defined smallholder farmers as having limited resources in relation to other farmers in the agricultural sector.

FAO (2015) therefore posited that the “definition of who can be considered as a farmer differ from one country to another because farm sizes evolve,” and “to trace their evolution through time is difficult” across both developed and developing world. According to FAO, this is “because the evolution of the small farm is intrinsically related to the process of economic development” such that “the differences in smallholder farms between countries can be significant” and reflecting the differences in the stages of development across countries. According to the Department of Agriculture, Forestry and Fisheries; Republic of South Africa, (2012), smallholder farmers differ in individual characteristics, farm size, resource distribution between food and cash crops, livestock and off-farm activities, their use of external inputs and hired labour, the proportion of food crops sold and household expenditure patterns.

However, the consensus among many scholars working on the smallholder farmers suggests a classification based “on a threshold size of 2 hectares.” Eastwood, R *et al.* (2010) corroborated this by saying that “evidence from numerous household surveys supports the idea that the median size of a crop farm is probably between one and two hectares.” Taking cognizance of

this, the farm-size definition of 2.5 acres and below adopted by MIVARF Programme in Tanzania; offers a redefinition and seems to be within the range of expected outputs commensurate with the realization of the goals of the programme. The undisputable reality about the practice of agriculture, especially in Africa, is the fact that it takes place on a small scale level.

The Department of Agriculture, Forestry and Fisheries; Republic of South Africa, (2012), opined further that the production system of the smallholders is characterized mostly by “simple, outdated technologies, low returns, high seasonal labour fluctuations and women playing a vital role.” In Tanzania, where agriculture is the mainstay of the country’s economy, the FAO reckoned that the smallholder produces 69 percent of the food in the country, where especially in the “major rice producing regions, 20% of farmers have access to and use the oxen to plough, either by hiring or of their own” (Rural Livelihood Development Company, 2009).

Towards improving Tanzania’s rice profitability through increased productivity and better marketing, the gender dimension of the smallholder farmers was copiously amplified in the Rice Sector Strategy document authored by the Rural Livelihood Development Company (2009). Women were reported as forming “60 to 80% of the agricultural labour force in the rural area” and despite their unpaid numerous household chores, are involved “in all aspects of rice value chain, particularly planting, weeding, bird scaring, harvesting, processing and trading.” FAO also attested that the source of labour also extends to the female gender group who “provide more labour on the farm than men.”

Relatedly, most smallholder farmers have been reported to often hire labour in addition to labour services from family members. The hired hands are “often on a seasonal basis,” and with contributions that are very small in relation to those of family members. It is such that the FAO (2015) observed that “the more family members work in the farm, the higher production per hectare.” It was even acknowledged by the FAO that the smallholder farmers often over-use family labour, to the extent that “the more family members work in the farm, the higher production per hectare” that is achieved.

In spite of the vantage position occupied by these smallholder farmers, what has however remained unchanged according to FAO (2015) is the fact that many of the smallholder producers

are “poor and food insecure and have limited access to markets and services”. It noted further that “their choices are constrained, but they farm their land and produce food for a substantial proportion of the world’s population”

Although the prevalence of rural poverty has been widely reported in sub-Saharan Africa and South Asia, the smallholders were not exempted from the ravaging scourge of poverty on the Continent. FAO (2015) observed that “poverty among small farmers is widespread and in most countries much higher than the national poverty headcount rate,” where the “landless, subsistence farmers, or herders struggle to fulfill their basic needs.”

With copious evidence from Rwanda, Uganda and Northern Ghana, Gollin (2014) observed that “many smallholder families produce a large fraction of the household’s food; and conversely, much of their agricultural output is consumed within the household.” In the United Republic of Tanzania for instance, the FAO (2012) reported that an average smallholder family of five persons - living on \$1.9 a day each - spends 81 percent of this budget on food. Such households; and “being poor means that a large proportion of the budget is spent on food.” According to FAO (2015), “low incomes mean that small farmers spend less on education and health.” Books and fees are the most important items of household expenditure on education, where smallholder families allocate between 2-3 percent of their budget to education.

While many reasons could account for the large consumption by the households of smallholders, it is also imperative to note that such household usually engages members as source of labour to make the much needed difference. In “Enduring Farms: Climate Change, Smallholders and Traditional Farming Communities, FAO (2012)” acknowledged that “smallholders are characterized by family-focused motives such as favouring the stability of the farm household system, using mainly family labour for production and using part of the produce for family consumption.” This was cited as one of the reasons that makes smallholders to “work on their farms more intensively than profit maximization suggests.”

Drawing from their research experience in Kenyan family farms, Karfakis, P., Ponzini, G and Rapsomanikis, G (2017) opined that “lack of well-paid opportunities in the rural areas – which can also be associated to low education levels – result in farm households assessing the returns to labour as being very low.” Faced with such a low rural ‘wage’, it was observed that small family

farm households tend to over-use their labour; such that the smaller the farm, the greater the labour intensity. The researchers concluded that “if all smallholder family members of working age had more opportunities and were paid the national average wage, rural income would double.”

Although rural poverty has been observed and pronounced to be acute in sub-Saharan Africa and South Asia by the FAO (2015), especially among smallholders described as “landless, subsistence farmers, or herders, who still struggle to fulfill their basic needs,” it is apt to note that poverty among small farmers is widespread and in most countries much higher than the national poverty headcount rate – the percentage of population that lies below the national poverty threshold.

To combat the scourge of prevailing poverty in the Africa continent, Hazell et al. (2007) remarked that smallholder agricultural development offers ‘one of the main ways to reduce poverty’, while also suggested that, at least in some relatively dynamic areas, smallholder agriculture can contribute significantly to economic growth. Gollin (2014) attributed numerous papers (by de Janvry and Sadoulet, 2009; Fan et al., 2000; Fan et al., 2002; Gemmell et al., 2000; Ligon and Sadoulet, 2008; Tiffin and Irz, 2006) as having provided some “evidence that increases in agricultural output or productivity lead to large reductions in poverty.”

It was also the view of the Department of Agriculture, Forestry and Fisheries; Republic of South Africa (2012), that declining agricultural performance is a major driving force behind growing poverty among African smallholder farming populations, and its recovery offers the greatest prospects for rural populations to escape out of poverty. Smallholders inability to diversify their income has often been touted as the chief reason for the prevalence of poverty in Africa. The FAO (2015) observed that “differences in smallholder and other farmers’ income reflect differences in capital assets, such as land or livestock, but also differences in the skills-mix which give rise to diverse sets of opportunities in the rural non-farm sector.”

The FAO argued further that “within the context of the rural economy, the livelihoods of smallholders depend on their choices on how to allocate their labour and few assets across farm and non-farm activities and generate the highest income possible given the constraints they face.” The FAO suggested that with income diversification, smallholders would reduce their exposure

to risk and that it is “the possibility of adverse shocks, such as droughts, that makes smallholder families to seek employment outside the agricultural sector to hedge against climatic and other market risks.”

It has been argued further that for many of the smallholders, income from crop and livestock production only is not enough to cover the basic needs of their family. The FAO concluded that “meagre productive assets – land and livestock – are insufficient to support livelihoods and drive smallholders, who often have no education or specific skills, to supply their labour for low returns in the unskilled labour market.”

While it is a fact that a number of factors determines market participation by smallholders, FAO (2015) opined that the competitiveness of the smallholder farmers to participate actively in the market has been greatly impaired by the costs of participation – the underlying transaction costs. It asserted further that “many smallholders may have limited opportunities to participate in markets due to high transport costs.” This is because the smallholders are generally geographically dispersed, and their supply is both small and inconsistent, thus making private traders either not source from them or requiring higher margins to cover their costs.

The FAO (2015) remarked further that the “choices smallholders make are non-separable and inter-dependent but are essentially of a private-sector nature.” This is because, they are dependent on the economic environment which is crucial in transforming agriculture and can be shaped only by government interventions. It was cited that even decisions on educating their children can shape their choices on when to sell their produce, they sell their produce mostly when prices are at their lowest level – just after harvest, which always coincides with the start of the school session – in order to meet the cost of schooling.

The critical challenges confronting the smallholders have also not gone unnoticed by scholars. Such challenges have greatly impeded their growth and ability to effectively contribute to food security, especially when compared to others involved in large-scale agricultural farming enterprises. The political will by most developing countries to lift the smallholder farmers from the vicious cycle of poverty has been one of the greatest bane of smallholders. FAO (2015) opined that “providing the enabling environment to improve the investment climate and integrate

smallholders into markets is a standard and passive policy prescription” and constitutes the missing link in reversing the ill fortune of most smallholders.

Similarly, FAO has observed that “smallholder agriculture faces the challenges of increasing food production to meet growing demand and generating adequate jobs at reasonable wages to contribute to economic growth.” This is against the background of “agricultural productivity growth that is slowing down and a growing population in many developing countries.” This portends that countries with large and growing rural populations will depend even more on agriculture, not only for food, but for employment and income.

In the words of FAO, “population growth and rising incomes mean that food consumption will increase.” According to Alexandratos, N. and Bruinsma, J. (2012), “it is estimated that total world consumption of all agricultural products will grow by 1.1 percent per year from 2005/07 to 2050.” The implication of this is that global production in 2050 should be 60 percent higher than that of 2005/07.

Another of the numerous challenges confronting smallholders; identified by FAO and which is yet to be resolved is that of conserving and enhancing natural resources. According to FAO (2015), “land and water resources are now much more stressed than in the past and are becoming scarcer.” It was reported that together with productivity increases, the Green Revolution has caused environmental damage, with excessive and inappropriate use of fertilizers and pesticides that has polluted waterways. It was affirmed that smallholders’ irrigation practices have reduced groundwater levels, and their focus on staples has led to soil degradation and loss of biodiversity, with no room for high-input solutions.

There is no denying the fact as observed by FAO that in many developing countries, weak transport infrastructure pervades the landscape and gives rise to high transport costs. The attendant implication of this leads to “being costly to move people and goods, and results in a misallocation of resources between the farm and the non-farm sectors.” It remains a sad reality that most “rural areas remain under-developed offering limited opportunities for decent work, while the barriers to the mobility of labour result in small farm sizes.”

It is yet to be determined how many of initiatives by Governments across Sub-Saharan Africa in “building more roads to increase access to markets, supporting credit services to ease liquidity

constrains and implementing input starter packs programmes to increase technology adoption would ameliorate the challenges confronting smallholders and “be the first-best policies to address market failures, without affecting farm size in such a negative way.”

Although Douglas Gollin (2014), was of the view that discussions about the future of smallholder agriculture tends to take a static view; he nevertheless opined that “vast changes lie ahead, emanating from shifts in technology, markets, climate and the global environment.” Gollin asserted further that the changes in structure will almost certainly not involve any major shift away from family-based production units. Among his propositions were; that smallholders may be displaced by the growth of urban middle-class populations; the concomitant rise of supermarkets and commercial supply chains. He asserted further that they may also be displaced by continued growth in export-oriented agriculture and may require protection via policy in this process, as well as effective social safety nets that secure their well-being.

FAO opined that today, and in order to tackle the triple challenge of producing more food, creating more jobs and enhancing the resource base, “small farms require continuous introduction of better and more sustainably productive technology.” And as posited by Hazell *et al.* (2007) that smallholder agricultural development offers ‘one of the main ways to reduce poverty’, it is certain that in some relatively dynamic areas, smallholder agriculture can contribute significantly to economic growth and help in the reduction of rural poverty.

All of these are achievable when interventions that allows smallholder farmers; such as those aimed at supporting farmer organizations or cooperatives, to overcome transaction costs are conceived and implemented without any known biases against the smallholders.

Again, humanity have always embraced cooperation to achieve goals that would further their course and collective interests. This could also be the basis for the underlying trend among smallholders to organize themselves into groups that would advance their course and protect their collective interests. There are ample evidences in the literature to support and justify the coming together of farmers to form farmers’ organizations, albeit voluntarily or as influenced by the Government or by collaborating Non-Governmental Organisation (NGOs).

In most sub-Saharan African countries where most of the rural populations are actively involved in agricultural activities, a number of Farmer Organisations are in existence; and their will

expressions, often exhibited as collective action is what Meinzen-Dick and Di Gregorio (2004) have defined as “voluntary action taken by a group to achieve common interests.” It is such that Jon Hellin *et al* (2007) sees “farmer organization as a more formal expression of collective action,” and concluded that collective action can exist, even in the absence of farmer organization. For all that they stand for and the success stories around their activities, Hellin Jon *et al* (2007) opined that farmer organization and collective action are often seen as key factors in enhancing farmers’ access to markets and the possession of the capability that can provide farmers with many services that are critical to their success in accessing markets.

In her Framework for the Development of Smallholder Farmers through Cooperatives Development (2012), the Republic of South Africa’s Department of Agriculture, Forestry and Fisheries observed that “being voluntary, democratic and self-controlled business associations, co-operatives offer the institutional framework through which local communities gain control over productive activities from which they derive their livelihoods.” The framework averred that Farmers’ Organization in the mould of cooperatives offer prospects that smallholder farmers would not be able to achieve individually; such as helping them to secure land rights and better market opportunities; and gaining “big benefits from agricultural co-operatives including bargaining power and resource sharing that lead to food security and poverty reduction for the millions.”

The mixed feelings generated by the long-term decline in the real price of commodities and the associated dismantling of the erstwhile monopolistic Produce Marketing Boards hitherto presiding over domestic trade and unilaterally determining prices of agricultural commodities across many developing countries also fast-tracked the emergence of most farmers’ organization where until recently, farmers had often relied upon the same marketing boards to access inputs such as credit and fertilizer as well as extension and training. Interestingly, Hellin Jon *et al.*, (2007) were quick to add that one consequence of the twist was that farmers were no longer compelled to sell at prices set below the value of their produce on world markets.

Despite the usual enthusiasm for farmer organizations, the process of establishing viable organizations is not a simple one, Stockbridge *et al.* (2003) opined that it is often a challenge to establish the rules on which farmer organizations are based; to secure commitments on the part of the group members to abide by collectively-agreed rules; and to monitor and enforce

compliance with the rules. In some cases, the establishment of farmer organizations incurs transaction costs which, if too high, may mean that farmers are better off not organizing themselves into one.

In discussing the roles of Farmers Organisation, Stockbridge *et al.* (2003) were able to identify eight unique services provided by smallholder farmer organizations, and these include: Marketing Services (input supply, output marketing and processing, market information), Facilitation of Collective Production Activities, Financial Services (savings, loans and other forms of credit) and Technology services (education, extension, research). Others identified include: Education services (business skills, health, general), Welfare services, (health, safety nets), Policy advocacy and Managing common property resources (water, pasture, fisheries, forests).

In their review of Farmer Organization, Collective Action and Market Access in Meso-America, Hellin, J. *et al.* posited that farmer organization is a critical factor in making markets work for the poor; particularly in high value products, and noted further that the role and timing of the substantial public and private investment needed to establish and maintain these organizations is poorly understood.

In the opinion of Lundy, M. *et al.* (2002), the private sector has proven incapable and or unwilling to replace previous state services of the Produce Marketing Board due to high transaction costs, dispersed clientele, and low (or non-existent) profits. In response, according to Hellin *et al.* “policy makers and development practitioners are increasingly supporting small-scale producers to associate, collaborate, and coordinate in order to access Business Development Services and achieve economies of scale in their transactions with input suppliers and buyers” as part of the new thinking on a pro-poor market approach in the formation of Farmer’s Organization.

Berdegúé, J. (2001), therefore contends that “all too often the process leading to farmer organization is instigated by outside agents such as government and NGOs, and in some cases the private sector (e.g. dedicated wholesalers supplying supermarkets).” And that “when government and or NGOs are involved, there is a danger that at the first signs of financial trouble, the outside agencies will be tempted to bail out the farmer organizations and by so doing

externalize some of the organization's costs." However this is viewed, Hellin et al (2007) concluded that farmers' participation in high value and or value-adding activities offer one of the few agricultural based pathways to reduced poverty and increased livelihood security.

Both Berdegue, J. (2001) and Camacho *et al.* (2005) acknowledged that a great deal of public (and private) money are usually invested in establishing farmer organizations with mixed results in terms of the number of beneficiaries and the sustainability of the organizations. Therefore, in their study on "Improving the access of smallholders to agricultural services in sub-Saharan Africa: farmer cooperation and the role of the donor community," Stringfellow *et al.* (1997) identified three key factors that determine whether or not successful farmer cooperation for marketing is likely to take place: a) a match between the existing skills/experience of members and what is required to undertake joint activities; b) internal cohesion and a membership driven agenda; and c) successful, commercially oriented, integration of the organization into the wider economy.

This position has been further affirmed by Pingali *et al.* (2005) who opined that successful association requires management and entrepreneurial skills, - 'soft' assets that many small producers with little education are less likely to have. Drawing from case studies from Central America and Mexico to demonstrate the opportunities and challenges surrounding the establishment of farmer organizations, Hellin *et al.* revealed that farmers have formed organizations under two scenarios: firstly, to take advantage of subsidized extension advice and an associated agriculture technical package; and secondly, to access subsidized maize seed. All these are more in the context of a plethora of government agricultural support programs spanning several decades (including across developing Countries). These programs have tended to focus on the provision of inputs and have encouraged some degree of collective action and organization on the part of farmers.

The case studies from Hellin *et al.* shed more light on several key questions that need to be addressed for an enduring farmers' organization, such as: Who is going to make the investment to support the establishment of farmer organizations: the public and or private sector? How do you try to ensure sustainability of the farmer organizations? And what are the cost implications for the public and private sector? The consensus from Hellin *et al* was that very few of the development organizations that have facilitated the establishment of farmer organizations have a

clear understanding of the costs and margins along the value chain. The implication of this view is that this sort of information is needed in order to help them make sure that the services provided are sustainable once development subsidies dry up. It was further observed that many organizations do not know how much it costs to provide technical assistance nor have they incorporated it into their cost structures.

For instance, in the run-up to the formation of Msalala Paddy Farmer's Company (MPAFAC), SEIDA (2017) attributed "issue of low production volumes, poor access to timely seeds, fertilisers, high interest rates of banks, poor prices and quality of rice produced" as the pertinent reason behind the formation of MPAFAC, where "the actors lacked a bridge to make them cooperate and address their individual production, quality and markets constraints." Members therefore "took the problems as theirs and required each participating actor to address the challenge within his or her domain."

It was such that Msalala District Council "participated as regulator and this helped in shaping thinking of platform members by emulating business principles and ethics." Therefore, it was against this background that the Producer Groups finally came with the idea of a Farmer's Company "to be able to enter understandings with the Banks and input providers on behalf of their members."

Today, the Company is both an advocacy and quality control centre of production and marketing of all the rice produced in Msalala; and has a 9-member Board of Directors that meets quarterly to manage its affairs. The Management Board positions include: The Chairman, Vice Chairman, Secretary, Vice Secretary, the Treasurer and 4 other elected members from the Marketing, and the Production Committees (See Appendix 1). MPAFAC today is a company registered by Tanzania's Bureau of Registration and Licensing Authority (BRELA) and possesses all the required permits; including a Tax Payer Identification Numbers.

While there is no denying the fact that farmers in developing countries still face numerous marketing constraints, including those that raise marketing costs and those that increase the risks associated with commercialization (Minot, N. and Hill, R. (2007), the consensus among scholars' is that improving market access for smallholders would translate and result into improvement in income and food security to complement their livelihoods.

Market failures often limit smallholders' ability to be linked to markets, it is such that Market interventions such as collective action is proposed by Gyau, A. *et al* (2014) as a strategy to reduce the risks of market participation and market failures. Although Gyau *et al.* contends that the literature is replete and with many case studies existing on collective action as a means for increasing smallholder farmers' market access, the scholars posited that most are often fragmented and context specific.

In the words of Gyau, A. *et al* (2012), collective action refers to action taken by a group either directly or indirectly in pursuit of members' perceived shared interest. It is what Sandler Todd (1992) described as arising "when people collaborate on joint action and decisions to accomplish an outcome which involves their common interest." However, Meinzen-Dick RS (2009) in his publication tagged "Coordination in Natural Resource Management" featured in *Institutional Economics Perspectives on African Agricultural Development*; including Chaddad FR, and Cook, ML (2004) both viewed collective action as being applied to group activities that directly or indirectly enhance the production and marketing of agricultural and food products, and reflects a global trend caused by the increased market competition and integration, and marginalization of minorities into modern markets.

Although Barham, J. and Chitemi, C. (2009) suggests that more mature groups with strong internal institutions, functioning group activities, and a good asset base of natural capital are more likely to improve their market situation, both Barham, J. and Chitemi, C. (2009) and Facheux, C. *et al* (2012), contend that in the marketing literature, collective action has been conceptualized to comprise of group training in production methods, negotiation skills, grading and sorting, and group dynamics which subsequently enhance bulk marketing of products by members of cooperatives or communities in order to reduce transaction costs and enhance economies of scale.

Nevertheless, an operationalized definition of collective action was as proffered by Devaux, A. *et al.* (2008) that defined it as "an action by members of a group or cooperative who come together to share market knowledge, sell together and develop business opportunities."

However, it is the opinion of Markelova, H. *et al.* (2009) and Stockbridge (2003) that the literature has delineated guidelines and conditions to enhance the success of collective action.

They argued that for it to be effective, voluntary action and cooperation among farmers are important for creating sustainable livelihood options.

In spite of its many benefits, some reality checks have been proffered by scholars in the implementation of collective action, and these include the point by Johnson, N. and Berdegue, J. (2004), Hellin, J. *et al.* (2007), and Pingali, P., *et al.* (2005) that collective action is difficult to organize, coordinate and manage. They posited that organizing farmers faces challenges such as establishing rules to guide the operations of the groups, securing commitments on the part of the group members to abide by collectively agreed rules, and monitoring and enforcing compliance with the rules.

Relatedly, Gyau, A. *et al.* (2014) have amplified the need for farmers to work together, facilitated by the farmers' willingness to pursue a common course of action instead of being stimulated by outside parties such as non-governmental and development organizations who may be tempted to put farmers into groups for the sole purpose of marketing. This is achievable by channeling collective or group activities through existing groups (if any) who are bonded by social motivations such as the traditional credit groups, including the popular SACCOS and VICOBA in Tanzania.

This view however contradicts the position of Facheux, C. *et al.* (2012) that shares the view that collective action is limited; and that in many cases it cannot be effective if used alone. Rather, they posited that "it needs to work in tandem with other forms of interventions such as guaranteed funds and post-harvest technology although it is an easy entry point to improve farmers' benefits from marketing agricultural products."

While market interventions such as collective action can be used to address market imperfections which will subsequently lead to increased market participation and improve livelihoods, Fischer, E. and Qaim, M. (2011) have however remarked that the success of collective action also depends on the characteristics of the products as well as the incentive of other producers to 'free ride' necessitating the need to recommend 'best fit' models of market intervention(s) which takes into account the specificities of the product, producers, and relevant institutional and policy environment for accelerated impacts.

Therefore, it is only apt and relevant to appreciate the submission of Gyau, A. *et al* (2014) that collective action is likely to succeed when internal factors, including favorable group size, group norms and voluntary cooperation among members exist. It is crucial that all these be put in the context of an enabling environment, which includes favorable policies and regulations, and supporting institutions such as market information.

Relatedly, beyond its general definition as any form of wealth employed or capable of being employed in the production of more wealth, the place of capital; such as money, seed and other agricultural farm inputs crucial of assuring livelihood cannot be overemphasized. Capital is one of the popular, and age-long recognized factors of production that includes Land, Labour and Entrepreneurship, combined together to deliver goods and services.

Although Bourdieu, P. (1986) in his “*Forms of Capital*” identified different forms of capital, his perspective on capital however suggests that it may be difficult to isolate and separate different types of capital from their general overlapping and convertible nature, especially on how to operationalize, explore and account for their different forms.

The categorization of smallholder farmers in most literatures as among the poorest and most food-insecure people in the world; together with the description by Dixon *et al.* (2003) of smallholders as having limited resources in relation to other farmers in the agricultural sector calls for greater action in meeting the world’s unprecedented demand for food. This is in spite of the poverty circumstance of most smallholders; and FAO (2008), reportage that 50% of the world’s hungry are smallholder farmers, 20% are landless rural, 20% are pastoralists, fishers and forest dependent and 20% are the urban poor.

Despite their socioeconomic importance, IFC (2014) in her publication “Access to Finance for Smallholder Farmers: Learning from the Experiences of Microfinance Institutions in Latin America” observed that smallholders tend to have little or no access to formal credit, which limits their capacity to invest in the technologies and inputs they need to increase their yields and incomes and reduce hunger and poverty, both their own and that of others.

While the need to increase agricultural productivity is essential for global food security, poverty reduction, job creation and economic growth, the Food and Agriculture Organization of the United Nations (FAO, 2009) estimates that agricultural production must increase by 70 percent

in order to meet the demands of a growing world population, which is projected to rise to 9 billion by 2050. Thus, FAO emphasized that increasing production will in turn require a substantial increase in annual agricultural investment (from \$142 billion per year in 2009 to \$209 billion by 2050) by both the public and private sectors.

Citing *Findex data*, the IFC (2014) argued that while agriculture remains a key economic activity in Africa employing about 55% of the population, only approximately 1% of bank lending goes to the agricultural sector. The data revealed that only 4.7% of adults in rural areas in developing countries globally have a loan from a formal financial institution and only 5.9% a bank account. Although IFC (2014) agreed that access to financial services is not a means to an end, it however described it as “critical to provide funds for farm investments in productivity, improve post-harvest practices, smooth household cash flow, enable better access to markets and promote better management of risks.” Nonetheless, Morris, 1998; Erikson, 2002; Firkin, 2003 submitted that the inability of most smallholder farmers to access both financial and non-financial resources could truncate the lofty goals.

Business Call to Action in her publication tagged “Is Finance the Primary Binding Constraint for Smallholder Farmers?” opined that investing in smallholder farming has the potential to yield massive gains in terms of poverty reduction and increasing availability and access to food, and ensuring food security. However, the organization observed that access to finance remains one of the biggest - and largely unaddressed - challenges for smallholder farmers to retain their pre-eminence as part of the large-scale agricultural value chains.

IFC (2014) noted further that access to finance can also play an important role in climate adaptation and increase the resilience of agriculture to climate change, thus contributing to longer term food security. It contends that access to a comprehensive range of financial services is a significant challenge for smallholders, who constitute the vast majority of farmers in developing countries.

According to a study by Dalberg Global Advisers (2012), although the world’s 450 million smallholder farmers represent an important segment of the global agricultural value chain, the formal bank financing provided to these farmers barely meets 3 percent of demand. The IFC argued that majority of studies so far have focused on commercial smallholder farmers in value

chains served primarily by banks or through value chain firms. It stated further that this is a relatively narrow part of the market, representing only an estimated 7% of smallholder farmers.

It is noteworthy to state that despite the myriads of challenges daily confronting the smallholder farmers, research to date has said little about how smallholder farmers outside value chains and less commercially-oriented farmers access financial services of any kind, or the kinds of products and services they demand in spite of their roles in the larger sphere of ensuring access to food and, increasing its supplies to achieve food security. In this respect, the IFC (2014) proposed that solutions regarding access to finance need to better understand the various profiles of smallholder families and the conditions and market context where they operate.

There is a wider range of financial institutions involved in financing agriculture. IFC (2014) observed that financial institutions interested in serving the smallholder farmers' market face myriad risks and challenges associated with agricultural production and lending, that include: seasonality and the associated irregular cash flows; higher transaction costs; and systemic risks, such as floods, droughts, and plant diseases amongst others.

KAMPANI, an investment fund for smallholder farmer Organizations in the south since 2015 posited that the problem for small and medium enterprises is that "there is limited availability of capital in rural areas in developing countries." It observed further that "microcredits for smallholder farmers do exist and there are investment funds for very large companies; but in between, there is a gap." KAMPANI therefore affirmed that small and medium enterprises face many difficulties securing financing, especially in the agricultural sector.

In the words of Dalberg Global Development Advisors (2012), there are no precise numbers on the demand for agricultural finance. Pushing a very rough estimate, the consortium suggests that demand may be as high as \$450 billion in financial services (\$225 billion in short-term finance and \$225 billion in long-term finance).

Citing a report by Christen, Robert Peck, and Jamie Anderson (2013), the Consultative Group to Assist Poor (CAGPR, 2013) opined that the percentage of smallholders with access to finance is equally difficult to quantify. According to estimates, even promising approaches to expanding smallholder lending, such as value chain finance, are reaching fewer than 10 percent of

smallholders, primarily those in well-established value chains dedicated to higher value cash crops.

According to IFC (2014), the challenges to increasing access to finance are numerous and well documented. It noted that financial institutions interested in serving this market face myriad risks and challenges associated with agricultural production and lending, including seasonality and the associated irregular cash flows, high transaction costs, and systemic risks, such as floods, droughts, and plant diseases. IFC contends further that while these challenges apply to agricultural lending in general, they impinge on smallholder lending in particular, given the relatively higher transaction costs of provision and smallholders' limited ability to mitigate risks.

GIZ (2012) has therefore gone a step further to suggest a range of financial products for smallholder farmers. These include Savings, Credit, Agricultural Insurance, Microfinance and Agricultural Microfinance. Both Simon Bakker and Joan Yao (2016) have also suggested the introduction of "loans, not just for working capital, but for farm establishment and rehabilitation" as part of strategies to reduce poverty among smallholder farmers.

Although *Business Call to Action* noted that microfinance has expanded in the last decade, most institutions offering microfinance services were reported to be focused on providing short-term loans for non-agricultural purposes, and usually offer no savings, money transfer or insurance products.

However, IFC (2014) concluded that the evidence of microfinance institution (MFI) involvement in financing commercial and semi-commercial smallholders remains anecdotal and lacks specifics on what makes MFI lending to these segments feasible, and what restricts their reach and effectiveness. Nevertheless, IFC have gone ahead to identify factors required for successful introduction of agricultural lending in an MFI and these include: Knowledge of the client, flexible products, cash flow analysis of the household production unit, and diversified risk management tactics. Other factors proffered are: the use of specialized credit officers, adaptation of loan officer remuneration to incentivize smallholder lending, automation of data capture and credit analysis, customization of marketing materials to reflect the target market, high-level buy-in, and a strong customer service orientation.

Mitigating the identified risks of the smallholder farmers and the challenges of poverty reduction and food security would remain a mirage unless the smallholders are empowered with what Simon Bakker and Joan Yao (2016) have described as some creative thinking, collaborative partnerships and a great deal of hard work, including engaging microfinance institutions (MFIs) and other financial service providers with presence in most rural areas to be part of the larger solution in resolving this puzzle of capital provision for the smallholder producer, especially with ‘patient capital’ for the businesses of Farmer Organizations.

CHAPTER THREE: METHODOLOGY

3.0 METHODOLOGY

This section offers broad details of the study area, the population of study and how other key variables of the study were measured. These include description and evaluation of the methods of data gathering, including the techniques and adopted procedures.

3.1 THE STUDY AREA

This study was carried out in Msalala District Council (MDC), a predominantly agriculture-oriented rural area; and one of the Six Council Areas in the Shinyanga region of Tanzania. The District was carved out of the old Kahama Town Council in July, 2013 and lies between latitude 3°15" and 4°30" south of the Equator; and Longitude 31°30" and 33°00" east of Greenwich.

In terms of land mass, and according to Msalala District Council Social Economic Profile Handbook (2014), Msalala District Council “occupies an area of 263,520.2 hectares (2,635.52 km²) which is equivalent to 5.2% of the total area of Shinyanga region, i.e 50,781 km².” On her borders are, Geita Region to the north, Tabora Region to the south, Shinyanga District to the west and to the East is the Kahama Town Council. MDC is made up of 2 Divisions, 18 Wards, 92 Villages and 328 Sub-villages.

According to the 2012 Population and Housing Census, Msalala District Council had a total of 250,727 people out of which 122,234 (49%) were males and 128,493 (51%) were females. With the Tanzania's average annual intercensal growth rate estimated at about 2.7%, Shinyanga region's intercensal growth rate was put at 2.1% during the 2012 Census by Tanzania's National Bureau of Statistics.

3.2 NATURE AND SOURCES OF DATA

Both primary and secondary data were used. The secondary data were from desk review of relevant documents from Journals, the Internet, Baseline Study materials commissioned by MIVARF and from SEIDA (MIVARF Service Provider for Msalala Districts). Also reviewed were relevant publications of the United Republic of Tanzania (and her Agencies), Shinyanga Region and Msalala District Council among others.

Primary data for the study were collected using a structured questionnaire comprising of 56 open and close ended questions, which was self-administered among the 315 respondents. Key Informant Interviews (KII) were also held with a total of 8 stakeholders selected through a nonprobability sampling techniques, and they include: 3 MPAFAC Board members, 3 Leaders of Smallholder Groups considered to be knowledgeable and custodians of the general information on the operations of their respective Groups. The list also includes KII session with a top official of Vision Fund (A Tanzanian Government licensed Microfinance Bank and partner on the MIVARF Programme) and SEIDA (The Service Provider on the Programme).

3.3 METHODS OF DATA COLLECTION

Essentially, the target population of this study were the smallholder farmers and members of the Msalala Paddy Farmers Company (MPAFAC). As a registered Farmer Organization by Tanzania's Bureau of Registration and Licensing Authority (BRELA), MPAFAC as at the end of the 2017 farming season, has a total of 40 Producer Groups comprising of about 44% (503) Males and about 56% (643) Female farmers; totaling 1,146 members spread across the 6 Wards of *MIVARF* Pilot Areas in Msalala District Council

For the purpose of this study, a total of 1,146 members of MPAFAC constituted the survey population; from which a sample size of 315 were randomly chosen as respondents for the survey questionnaire. MPAFAC and her activities have been purposively identified as the focal subject of this study; and has her membership drawn from the 6 Wards of *MIVARF* Pilot Areas

of Msalala District Council. The Pilot areas are: Kashishi, Bulige, Ntobbo, Busangi, Chela and Segese, with a total of 1,146 members spread across 40 Smallholder Groups.

The prevalent inclement weather that necessitated flooding of some Villages under the *MIVARF* Pilot Wards in Msalala as at the time of data collection for the study prompted the exclusion of the Kashishi Ward (and her 5 Smallholder Groups of 125 members). In as much as the achievement of a sample size that is representative of the universe population of the Study is crucial, the sampling frame for this study was thereafter drawn from the remaining 5 Wards of Bulige, Ntobbo, Busangi, Chela and Segese and with the assumption that the excluded Wards would not significantly affect the outcome of the survey. Their selection was also greatly influenced by such other factors as: Accessibility to all elements, Time consideration (available for the study) and cost consideration.

Having excluded Kashishi Ward from the list, a total of 35 Smallholder Groups comprising of about 45% (462) Males and about 55% (559) Female farmers were sampled (Table 1). And to ensure representativeness and generalization of the entire sample population of the study, a total of 315 smallholder farmers, representing about 30% of the sample population were randomly and carefully selected using the Simple Random Technique.

In order to achieve evenness of the sample, a balloting system comprising of only 9 units of YES responses was put in place for random selection by members (that hovers between 30 and 35) in each of the selected 35 Smallholder Groups visited. The members with the 9 YES ballots were thus randomly selected and without any discrimination (across gender, age, religion, marital status and educational attainments) and thus formed the basis of the 315 sample respondents for the questionnaire administration.

To ensure reliability and validity of the research instrument for this study, a Pilot Survey involving the pretesting of the structured questionnaire was undertaken (outside of the study area) at Kahama Town Council with a total of 30 (Smallholder farmers) randomly selected respondents, representing 10% of the final sample size of the study. Part of the results from the pretesting ultimately informed some meaningful changes introduced to the final questionnaire to remove ambiguity and ensure clarity of the questions asked. It was also in the course of the Pretest that 2 independent Research Assistants, very fluent in both English language and

Kiswahili were engaged and trained to ensure hitch free communication aimed at gaining the confidence of the respondents who are basically non-English speaking.

3.4 ANALYTICAL METHODS/TECHNIQUES

The analysis of both the collected qualitative and quantitative data involved the use of Descriptive Statistics (Frequencies, Percentages, Charts and Cross Tabulations), while the inferential statistics featured the use of chi-square test to establish relationship and level of significance of the identified factors between the Farmer Organisation' influence and access to capital. The Statistical Package for Social Science (SPSS) was comprehensively utilized here to unravel insightful results for discussions and analysis.

CHAPTER FOUR: RESULTS AND DISCUSSION OF FINDINGS

4.1 SOCIO-ECONOMIC CHARACTERISTICS OF RESPONDENTS

Out of the 315 respondents, the Female gender constituted the majority in the survey, with a total of 179 respondents, representing about 57.0% of the total. The Male respondents were 136, which constituted about 43% of the respondents. The large scale involvement of the female gender group in farming across the study area is an attestation to the dominance of women in agriculture across Tanzania. This position is upheld by the Rural Livelihood Development Company (2009), that affirmed that women formed about “60 to 80% of the agricultural labour force in the rural area” of Tanzania and are involved “in all aspects of rice value chain, particularly planting, weeding, bird scaring, harvesting, processing and trading.”

Similarly, FAO (2015) also confirmed that the female gender group “provide more labour on the farm than men.” It is also an affirmation of the International Labour Organization (ILO 2017) postulation that about 70% of Tanzanian women are employed in the agriculture sector.

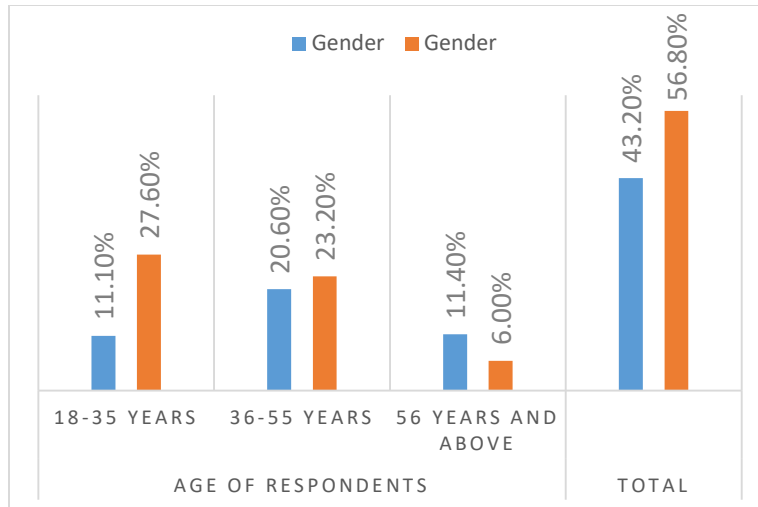


Figure 2: Percentage Distribution of Respondents' Age and Gender
 Source: Field Survey, 2018

On the other hand, three different age categories were identified in the survey. They are: the youth (18 to 35 years), middle (36 to 55 years) and elderly (56 years and above) aged categories. The dominant was the middle-age (36 and 55 years) category with a total of 138 respondents (44%): 53% females and 47% males, respectively. This is followed by the youth category in term of population. The implication of this is that the involvement of the 'Elderly' in the cultivation of *Paddy* is becoming insignificant, as the business of *Paddy* cultivation is now actively more in the hands of the younger generations. This is a reflection of Tanzania's 'Working Age' population (15 – 64) years, estimated at about 52% by the TNBS.

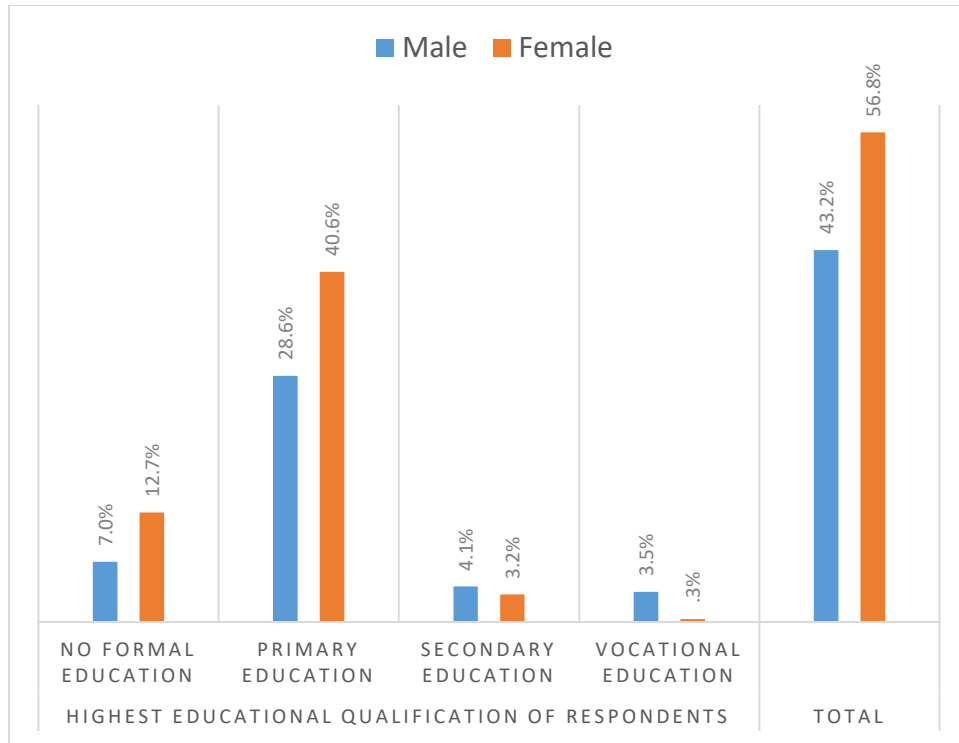


Figure 3: Percentage Distribution of Respondents' Gender and Educational Attainments
 Source: Field Survey, 2018

An insight from Figure 4.2 affirms that majority of the respondents totaling 218, (about 69.0%) had only Primary School certificate. All literate members with at least vocational education training were 80.0% (although only about 7% had secondary school certificate, while another 4.0% had vocational education). A total 20.0% of the respondents had no formal education, with a significant 64.0% of this group belonging to the Female gender.

By implication, educational attainments play important roles in the realization of lofty aims of most intervention programmes; implicitly, education is expected to open up the respondents' ability to decipher available opportunities to increase their knowledge and sharpen their skills.

The literature is replete with several studies that had classified and categorized most smallholder farmers as poor; thus prompting the introduction of intervention programmes as MIVARF to lift these smallholders out of poverty.

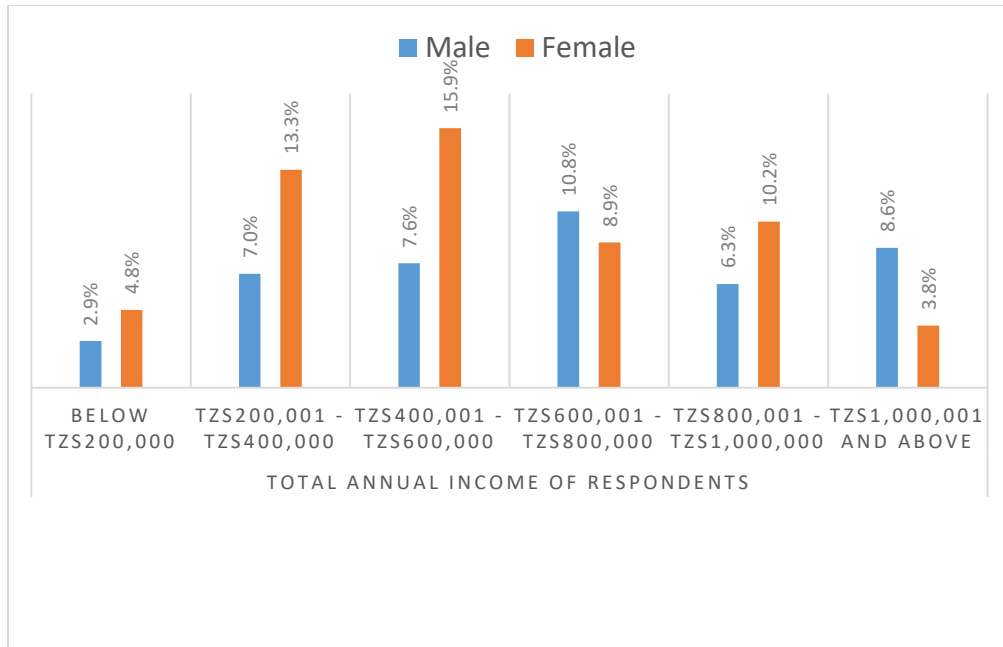


Figure 4: Percentage Distribution of Respondents' Gender and Annual Income
 Source: Field Survey, 2018

Figure 4 reflects the annual earnings of smallholder respondents in the study area. Modal annual income category identified by the study was the TZS400,001- TZS600,000; translating to about USD178 – USD267, using the prevailing unofficial exchange rate of TZS2,245 to USD1 as at the time of the study. Only about 12.0% of the respondents earns more than TZS1,000,000 (about USD445) annually.

Further, the 'Millionaire' group among the sampled smallholders has only 31.0% female membership, as against 69.0% males. In all, the income outlook reflects the prevalence of poverty among the smallholder farmer, and this is in tandem with Tanzania's poverty level estimated at about 33.3% of the population by the TNBS (2017).

4.2 RESEARCH OBJECTIVE 1: to ascertain the benefits of MPAFAC membership and extent of membership impact on access to smallholder farmers' capital

4.3 RESULTS BASED ON RESEARCH OBJECTIVE 1:

While several reasons could have motivated and inspire members to join an organization, especially MPAFAC as a Farmer Organization, a number of reasons were cited by the sampled

respondents; and these were summed up into the following categories: Opportunity and Mileage of Collective Marketing by MPAFAC, Satisfactory Impression of MPAFAC, Leadership Heritage of MPAFAC, Farmers' Education and Extension Services often embarked upon by MPAFAC and the Company's Profit-Oriented Disposition.

Findings from this study affirmed a significant 87.0% of the respondents as having derived benefits from their membership of MPAFAC. Only 9 members claimed not to have derived any benefits from MPAFAC as a member, while 4.0% could not ascertain whether they have benefitted or not.

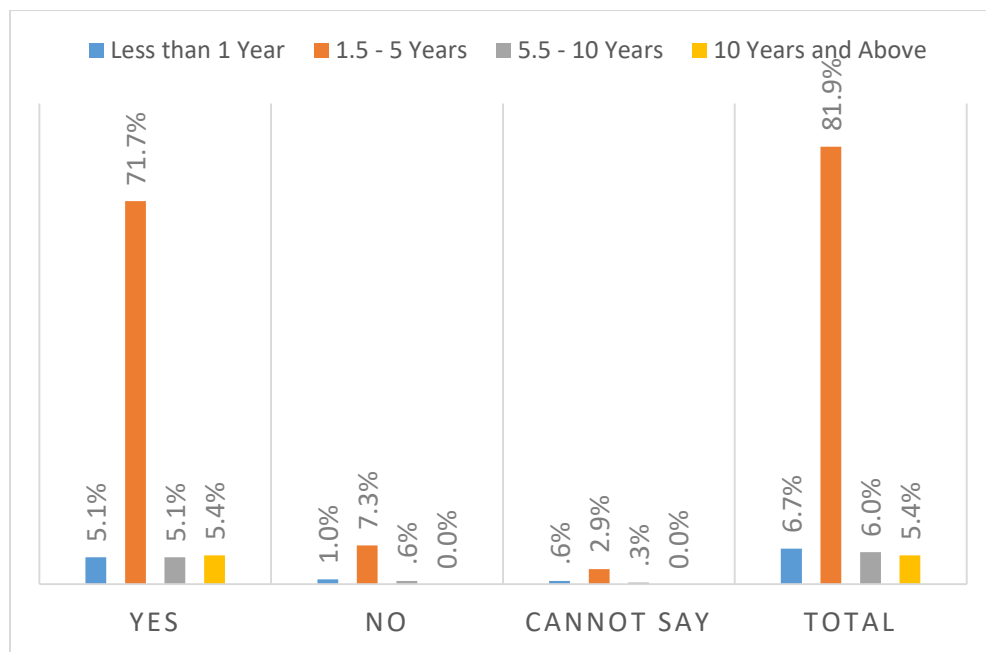


Figure 5: Percentage Distribution of Respondents' Years of Membership and Consent on Deriving Benefits from MPAFAC
Source: Field Survey, 2018

While it is true that years of the respondents' membership at MPAFAC varied with their consent deriving benefit, respondents with between 1.5 - 5 years of experience had the modal distribution of positive consent to deriving benefits from MPAFAC with a total of 226 (about 82.0%) respondents. This is another testament of the operational efficiency of MPAFAC as a farmer organization since its reformation in March 2015.

Some of the reasons cited by the few respondents with contrary opinion on non-derivation of benefits from MPAFAC includes: Default in membership personal obligations, Non-possession

of required collaterals to access credit, Excessive terms of engagements and Poor leadership across some Production Groups.

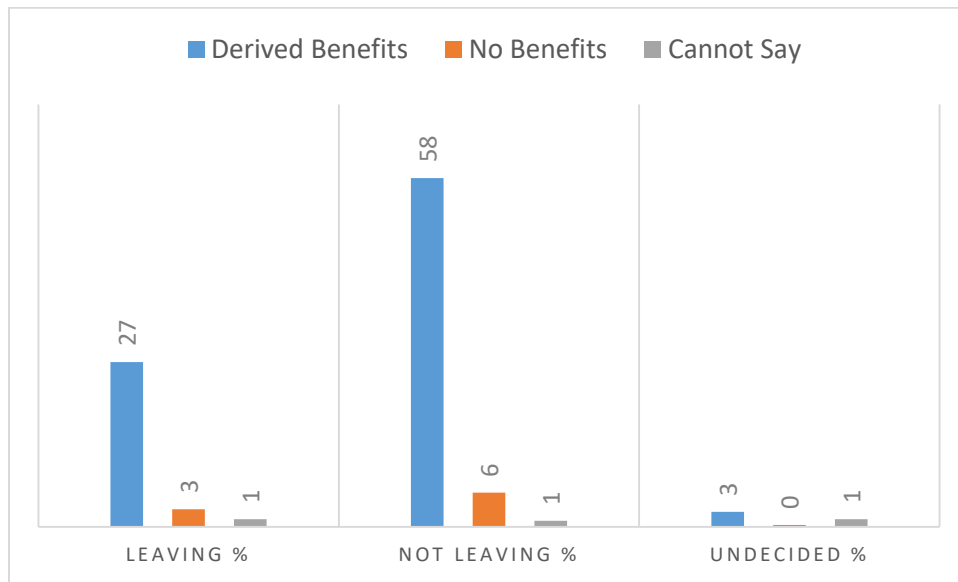


Figure 6: Frequency Distribution of MPAFAC Members Consent on Deriving Benefits and Willingness to Leave MPAFAC
Source: Field Survey, 2018

The study (Fig. 6) also found out that despite deriving benefits from the group, only 58.0% of the respondents were not willing to leave MPAFAC while most of those not deriving benefits are not willing to leave. Invariably, continued membership of MPAFAC goes beyond extant benefit derivation from the group.

Findings by this researcher during Key Informant Interview Session with some key MPAFAC Executive Council members affirmed that no Production Group have ever exited MPAFAC since its establishment in 2015, rather MPAFAC membership has continued to grow. Invariably, those who are presently benefiting have hope of future benefit or use their association with the group for other benefits outside the group.

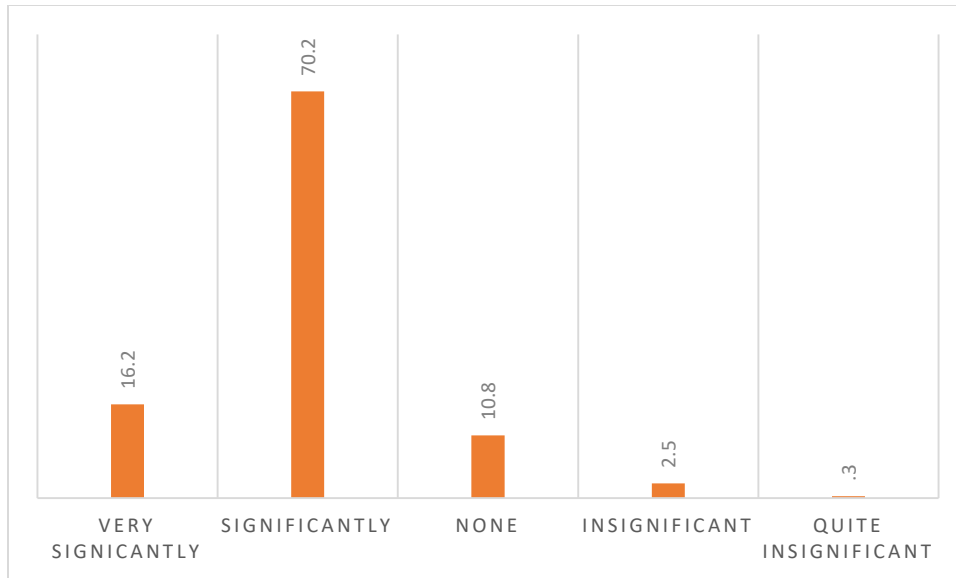


Figure 7: Respondents' Opinions on MPAFAC Membership and Effects on Personal Income Level
Source: Field Survey, 2018

An exposition on the likely impact of MPAFAC membership and its effects on the sampled respondents' personal income was the focus of Figure 7. The study found that majority (about 70%) of the respondents agreed that their membership of MPAFAC has 'Significantly' affected their personal income; while only 8, about 3% of the 315 respondents opined that their membership of MPAFAC has an insignificant effect on their personal income level.

All of the emerging results are positive indications of strong bonding and membership loyalty to MPAFAC as a veritable farmers' organization with capacity to meet the yearnings of the members.

RESEARCH HYPOTHESIS 1:

Using the Chi-Square inferential analytical tool, a further scrutiny of the gender of respondents' and its likely relationship on MPAFAC's assistance in access to capital was tested using the following hypotheses:

H₀: There is no significant relationship between gender of respondents and help received in access to capital

H₁: There is a significant relationship between gender of respondents and help received in access to capital

TABLE 4.1: CHI-SQUARE TEST OF SIGNIFICANT DIFFERENCE BETWEEN GENDER OF RESPONDENTS AND HELP RECEIVED IN ACCESS TO CAPITAL

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.719 ^a	2	0.057
Likelihood Ratio	5.694	2	0.058
Linear-by-Linear Association	5.678	1	0.017
N of Valid Cases	315		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 3.02.

From the Chi-Square Table, the calculated chi-square value was 5.719, and within the set probability level of 5%. We also had 2 degrees of freedom. Therefore, since the asymptomatic significance, P-value (P=0.057) is more than the chosen level of significance (5%), we reject H_0 and accept the *Alternate Hypothesis*, and safely conclude that there was a statistically significant relationship between gender of respondents and help received in access to capital.

RESEARCH HYPOTHESIS 2:

Bearing in mind that the female gender group constitutes the majority of MPAFAC membership, we tested further to establish if there is any significant relationship between the dominant gender group and access to capital help received from MPAFAC.

H_0 : There is no significant relationship between dominant gender group and help received in access to capital

H_1 : There is a significant relationship between dominant gender group and help received in access to capital

**TABLE 4.2: CHI-SQUARE TEST OF SIGNIFICANT DIFFERENCE BETWEEN
DOMINANT GENDER GROUP AND HELP RECEIVED IN ACCESS TO CAPITAL**

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.135 ^a	2	0.935
Likelihood Ratio	0.131	2	0.937
Linear-by-Linear Association	0.081	1	0.777
N of Valid Cases	315		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .98.

Results from the Chi-Square Tests revealed a calculated chi-square value of .135 and 2 degrees of freedom; all within the set probability level of 5%. Therefore, since the asymptomatic significance P-value (P=0.935) is more than the chosen level of significance (5%), we therefore reject the *H₀ Hypothesis* and accept the *Alternate Hypothesis*, and safely conclude that there is a statistically significant relationship between MPAFAC dominant gender group and help received by members in access to capital.

RESEARCH HYPOTHESIS 3:

Similarly, and in order to further gain a better insight on MPAFAC membership and extent of membership impact on income level, this Researcher undertook an inferential analysis of this dominant gender group of MPAFAC and its likely relationship on members' income level using the following hypotheses:

H₀: There is no significant relationship between dominant gender group and income level as a smallholder farmer

H_i: There is a significant relationship between dominant gender group and income level as a smallholder farmer

**TABLE 4.3: CHI-SQUARE TEST OF SIGNIFICANT DIFFERENCE BETWEEN
DOMINANT GENDER GROUP AND INCOME LEVEL**

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.898 ^a	4	0.925
Likelihood Ratio	1.002	4	0.91
Linear-by-Linear Association	0.342	1	0.559
N of Valid Cases	315		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is .14.

From the foregoing Chi-Square Tests, the probability level was set at 5%, while the calculated chi-square value was .898 with degrees of freedom that stood at 4. Therefore, since the asymptomatic significance, P-value (P=0.925) is more than the chosen level of significance (5%), it becomes imperative therefore that we reject H_0 and accept the *Alternate Hypothesis* that states that there is a significant relationship between dominant gender group and income level as a smallholder farmer.

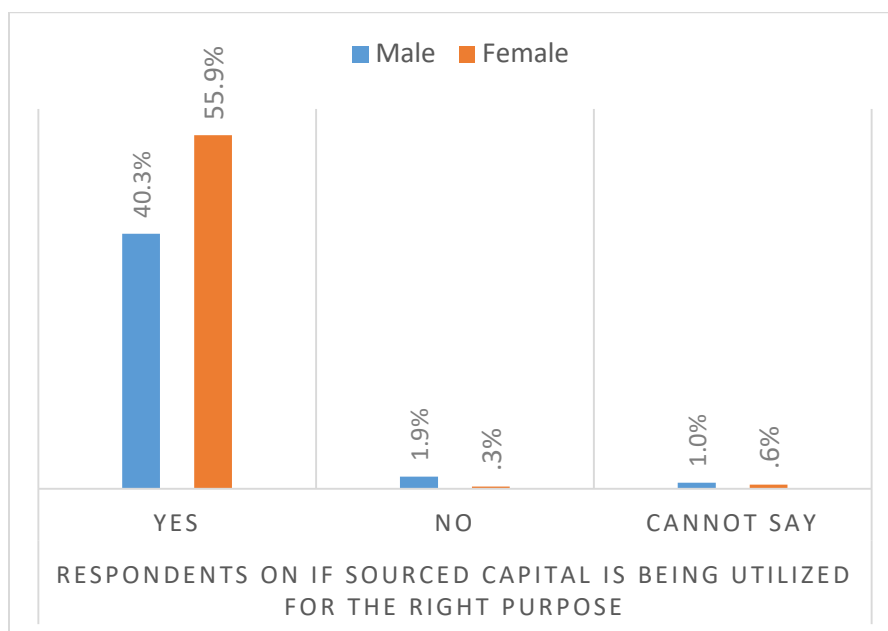
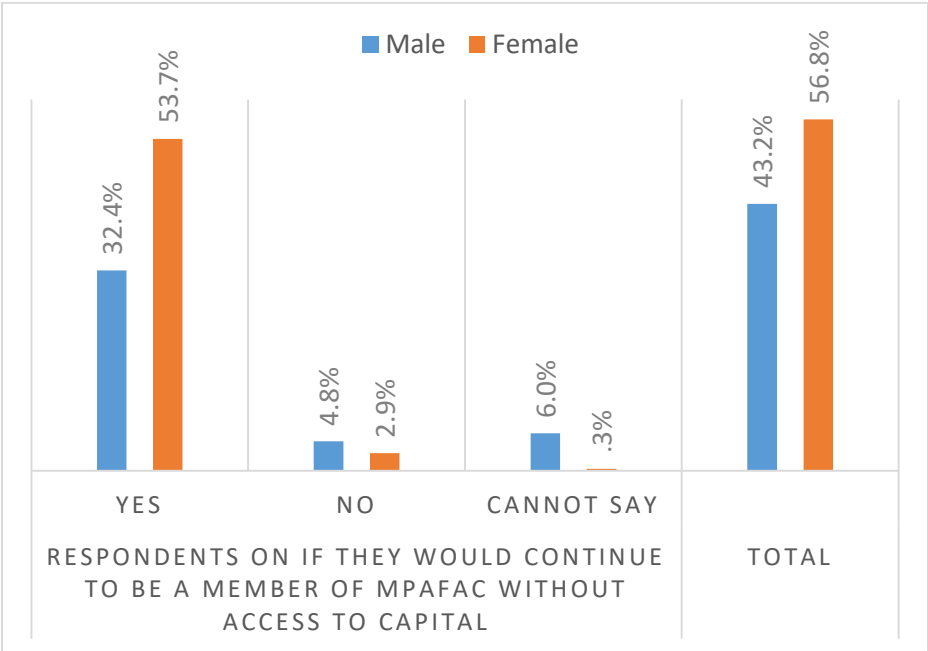


Figure 8: Respondents' Views on Members' Utilization of Sourced Capital for the Right Purpose
Source: Field Survey, 2018

Establishing members’ capital utilisation attitude, the study (Figure 4.7) found that 96.0% of the respondents affirmed that sourced capital by MPAFAC was utilized for the right purpose. This opinion cuts across the different gender categories, the female respondents alone constituted 58.0% of the ‘YES’ responses. Only 2.0% of the respondents claimed to the contrary, and the reason cited for their observations bothers on the perceived extravagant lifestyles of some beneficiaries.

This sounded flimsy and smacks of envy and possible mischief; probably calculated to tarnish the reputation of some members. Records from *Vision Fund Tanzania Microfinance Bank* confirms a ‘zero-default rate’ in loans repayment by beneficiaries, especially in the disbursement of TZS123,750,000 (One Hundred and Twenty-Three Million, Seven Hundred and Fifty Thousand Tanzania Shillings) during the 2017 planting season.

Even with or without access to credit facilities facilitated by MPAFAC, an overwhelming majority of MPAFAC members reaffirmed their commitment to the Farmer Organization. As a member and without access to capital facilitated by MPAFAC, respondents’ love for MPAFAC seems to be waxing stronger and real.



*Figure 9: Respondents' Views on Continued MPAFAC Membership Without Access to Capital
Source: Field Survey, 2018*

Examining the impact of access to credit on membership drive, the study (Figure 4.8) found that 86.0% of the respondents expressed their determination to retain their MPAFAC membership with or without credit access. About 62.0% of this group was of the female gender. The implication of this is that membership loyalty and commitment to MPAFAC is not dependent on their access to credit facilitated by the company.

Identified reasons that could negatively impact the company's membership include: poor leadership identified with some of the production groups, non-possession of required collaterals to secure the required credit facility as well as the stringent membership rules and regulations of MPAFAC membership.

4.4 RESEARCH OBJECTIVE 2: examining the roles of MPAFAC as a Farmer Organization, her business model, and contributions to value additions at various stages of production.

4.5 RESULTS BASED ON RESEARCH OBJECTIVE 2:

Revelations from Figure 4.9; gave an insight into the gender and age distribution of MPAFAC members. The gender-inclusiveness and age-exclusivity in the composition of MPAFAC membership gave a clear pattern of her business model. A juxtaposition of the Gender and Age distribution of the respondents reveals an interesting dimension in the membership composition of MPAFAC.

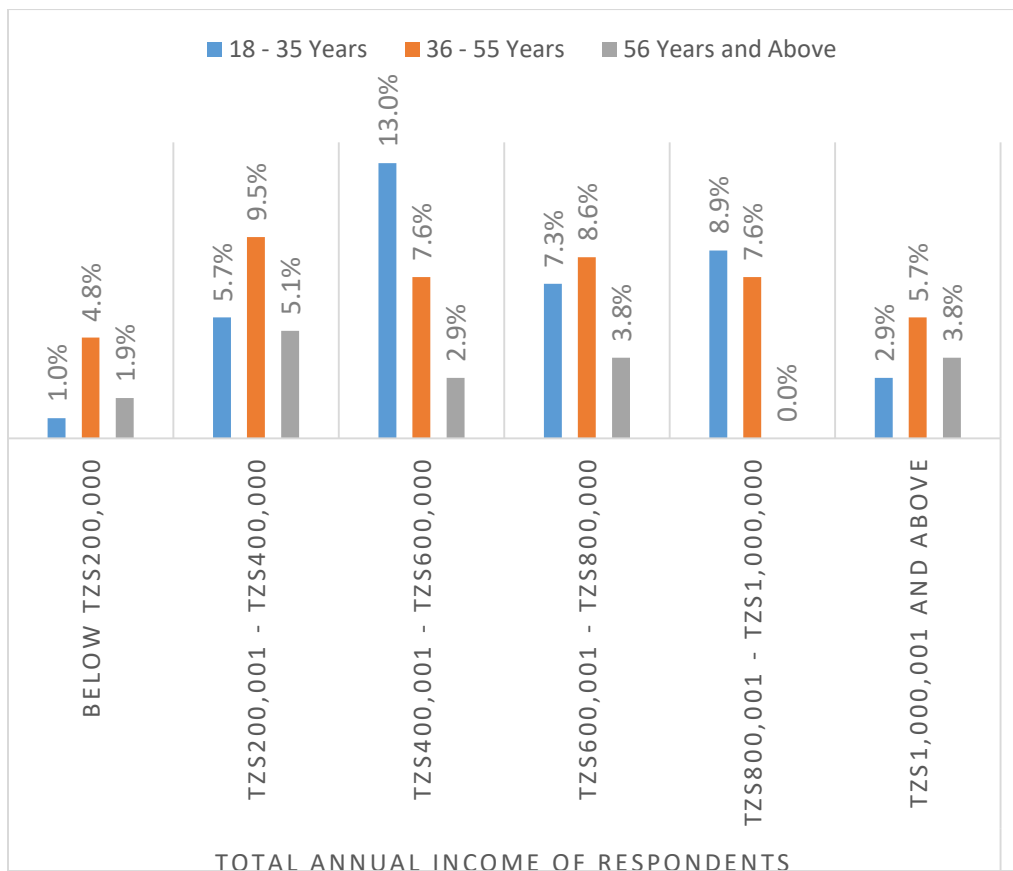


Figure 10: Percentage Income Distribution Among Respondents Along Gender and Age Divide
Source: Field Survey, 2018

The Figure reveals an impressive pattern of total compliance with MPAFAC Membership Rules and Regulations in the age structure and composition that forbids students to become members of the Company while within the secondary school age of 18 years. This is also in furtherance of the Tanzanian Government’s efforts at encouraging increased educational enrolment and reduction of the school drop-out rate in the country. Although as a smallholder farmer, most members of MPAFAC relies on family labour to undertake and prosecute their *Paddy* growing ventures.

From the MPAFAC members’ income distribution (Figure 4.9), the modal annual income of TZS4001 – TZS600,000 was dominated by the ‘Youth’ category (18-35years). However, the highest annual income (TZS 1,000,000 and above) was dominated (46.0%) by respondents

within the middle-age (36 -55 years) category. This reflects the growing of income with age among MPAFAC members in the study area.

About 82.0% of sampled respondents claimed to have been MPAFAC members for as much as 1.5 and 5 years' latitude. This is in tandem with the fact that MPAFAC officially came into being in March, 2015. However, 26 of the respondents (constituting about 11.0%), who claimed to have been MPAFAC members for about 5 years and above in the study were later found to be making references to other Farmers' Association they had belonged to prior to the formation of MPAFAC.

Members with over 10 years' experience in farming as an occupation were 44.0% and belonged to the Middle Age (36-55years) category. Only about 2.0% of sampled MPAFAC members have had less than 1 year farming occupation experience.

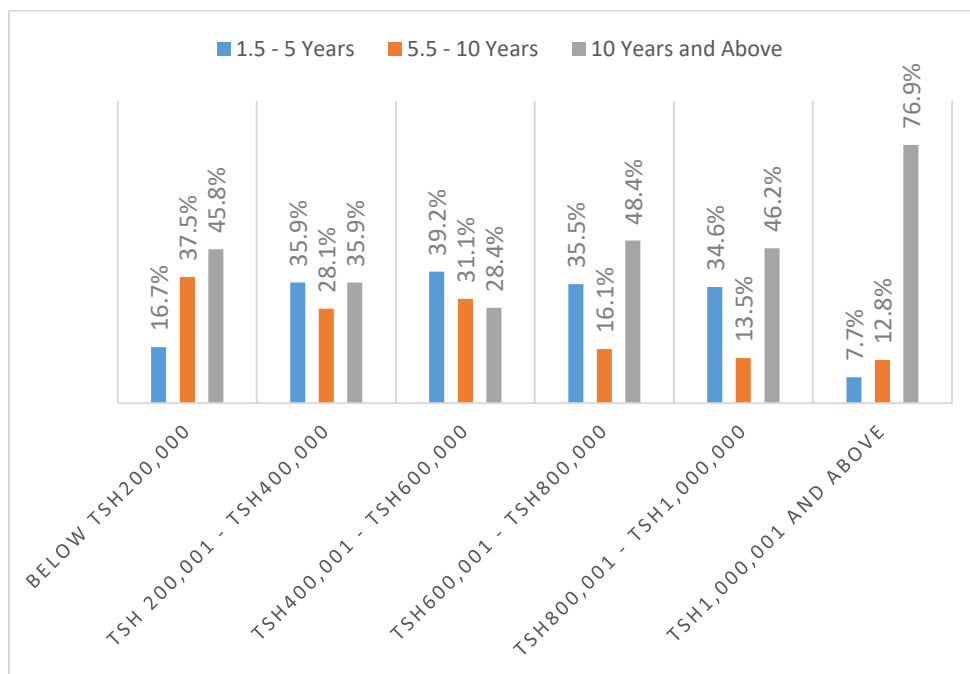


Figure 11: Percentage Distribution of Respondents' Total Annual Income Along Farming Experience Divide
Source: Field Survey, 2018

Investigating the impact of farming experience on annual income (Figure 11), it was found that 77.0% of the respondents earning an annual income of TZS1,000,000.00 and above, have more

than a decade experience in farming; whereas only 3.0% of those with less than 1 year farming experience are within this topmost annual income category.

On the other hand, about 39.0% of the respondents with 1.5 – 5 years farming experience earn between TZS400,001.00 and TZS600,000.00 annually. Also worthy of note though is that about 46.0% of the respondents with over a decade farming experience were found within the low income earners of TZS 200,000.00 and below.

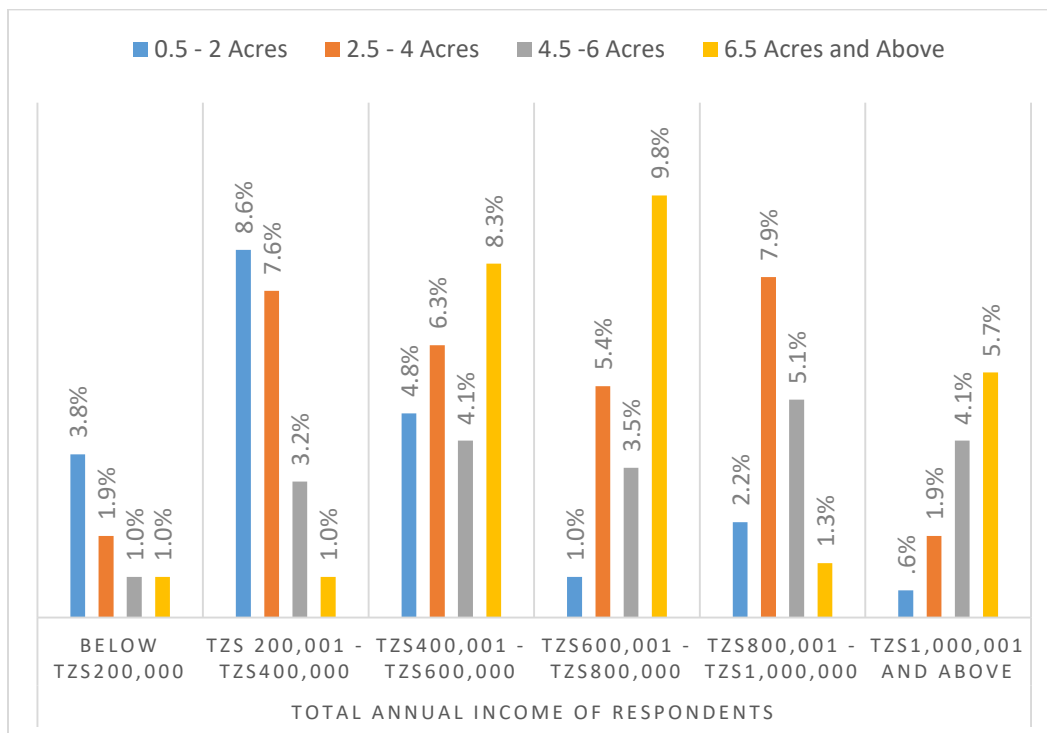


Figure 12: Percentage Distribution of the Impact of respondents' Farmland Size on Total Annual Income
Source: Field Survey, 2018

Although under the MIVARF Programme, farmland size for smallholder producers was defined at between 0.5 to 5 acres, a substantial number of the respondents totaling 85 (about 27.0%) admitted to have farmland in excess of the Programme guideline. These same respondents with farmland size in excess of the stipulated guideline underscores the accruable benefits of MPAFAC membership; and constituted about 35.0% of the respondents within the modal income range of TZS400,001.00 – TZS600,000.00. Modal farmland size identified by the study was the 2.5 to 4-acre range, which is owned by 98 (about 31.0%) respondents. Having farmland

in excess of the stipulated requirements of the Programme was to guarantee additional sources of income to substantially meet the set requirements by the financial service providers to facilitate access to loans.

Although land ownership and acquisition has always been a sensitive issue in Africa, be it for productive or developmental purposes; and has made its control to be constitutionally vested in the hands of government in Tanzania. As part of MPAFAC membership benefits, this study was able to identify Rentage/Leasehold as the most common means of farmland acquisition among 48.0% of the entire respondents. Only 26.0% of the respondents acquired their farmland via Inheritance; while though farmland acquisition as a Gift is no longer a common occurrence in the study area, this was peculiar to 5.0% of the respondents.

From opinions expressed by the respondents, a significant number; representing about 54.0% of the sampled respondents confirmed that they do not belong to any other Farmers' Organization other than MPAFAC. However, 146 (about 46.0%) out of the 315 sampled respondents affirmed their membership of other Farmers' Organization; this response is however suspect, and was subjected to further verification.

When asked to give names of such Organizations outside of the umbrella MPAFAC that they belonged to, a total of 23 Farmers' Organizations were mentioned. And when subjected to further scrutiny by this Researcher, 20 of the Production Groups mentioned were identified to belong to MPAFAC. The remainders were Organizations found to be operating outside of Msalala District Council (Study Area).

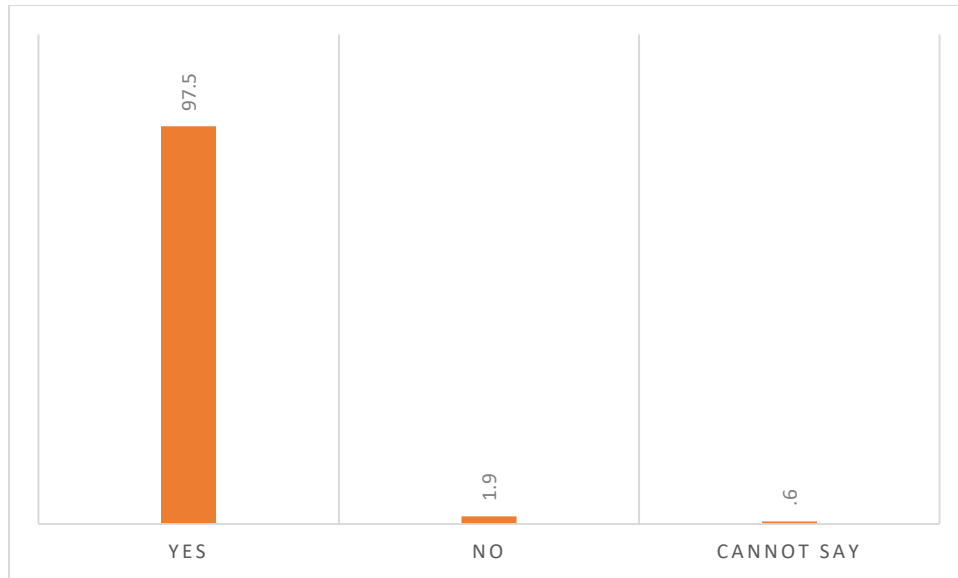


Figure13: Frequency Distribution of Respondents' Consent on the Necessity of Capital Access for Smallholder Farmers
Source: Field Survey, 2018

In ensuring a better understanding of MPAFAC business model as a Farmer Organization, respondents were asked question on the importance of capital to them. An outstanding 97.5% of the respondents acknowledged its importance; only 2 members (about .6%) could not define its importance in their farming business. Even when the opinions of the entire 8 respondents who offered contrary opinion on the importance of capital to them as smallholder farmers were aggregated, they could not substantiate their views with concrete reasons.

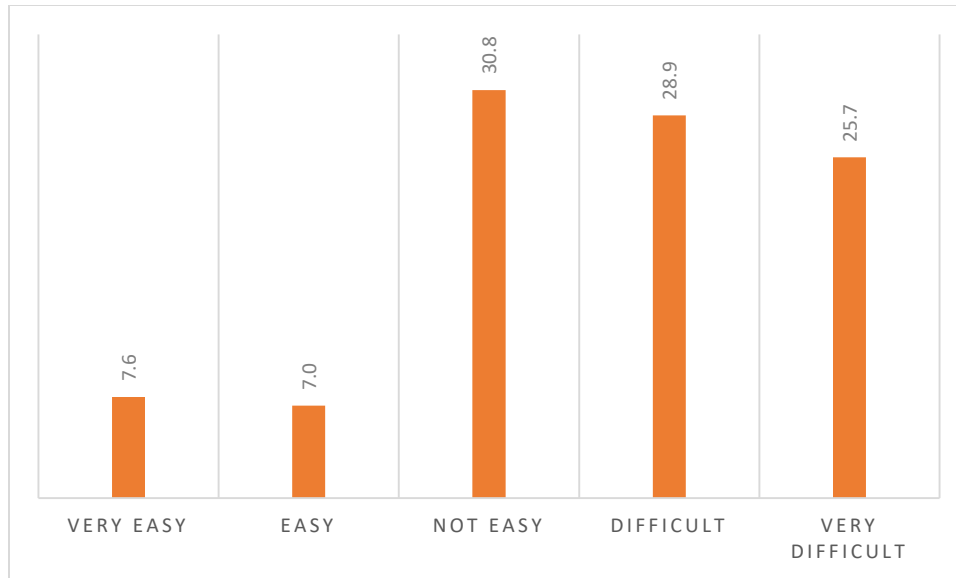


Figure 14: Frequency Distribution of Respondents' Views on Their Ease of Capital Access Before Becoming Members of MPAFAC
 Source: Field Survey, 2018

Assessing the necessity or otherwise of capital access to smallholder farmers, in the study (Figure 14) found that accessing credit was not easy for about 31.0% of the respondents before their membership. Another 29.0% adjudged the situation as “Difficult;” while 26.0% of the respondents found it “Very Difficult” before their membership at MPAFAC Company.

Cumulatively, a total of about 86.0% of all the respondents unanimously agreed and vents their displeasure with harsh words to describe their past experiences in access to capital before becoming a member of MPAFAC.

Sequel to the above, and following the unpleasant picture painted by the respondents over the difficulty in their access to capital, the respondents were asked to assess whether MPAFAC has been helpful to members’ access to capital drive within the value chain. Interestingly, members were almost unanimous at about 87.0% describing MPAFAC as being ‘helpful’ in their quest to access the much needed capital.

And out of the 31 (10.0%) who never saw MPAFAC as being helpful, some of the reasons tendered for upholding the view relates to the following aggregated opinions: Inability to access capital facilitated by MPAFAC, the cumbersome access to credit procedures; and the high one-off entry fee of TZS50,000 (Fifty Thousand Tanzanian shillings) to be paid by new members.

In exploring further the roles of MPAFAC for its members within the value chain, the aggregated opinions of members by this researcher revealed that other than supporting members to access capital, other support areas identified by respondents by which MPAFAC has been coming to the rescue of her members include: farmers’ education, advocacy on GOOD Agricultural Practices (GAP), human capital development (that includes financial literacy training and capacity building), Subsidized fertilizers/Inputs selection; as well as Market sourcing and linkages for farm produces.

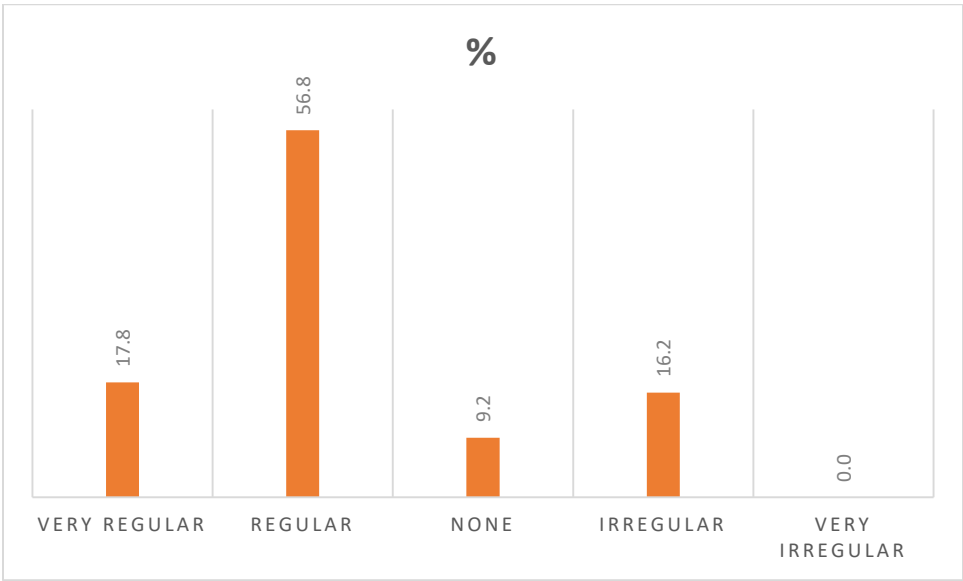


Figure 15: Distribution of Respondents' View on the frequency of Supports from MPAFAC
 Source: Field Survey, 2018

Investigating respondents’ perception of the frequency of MPAFAC support to members (Figure15) the study found that about 57.0% of them viewed the supports as ‘Regular,’ while another 18.0% described it as ‘Very Regular.’

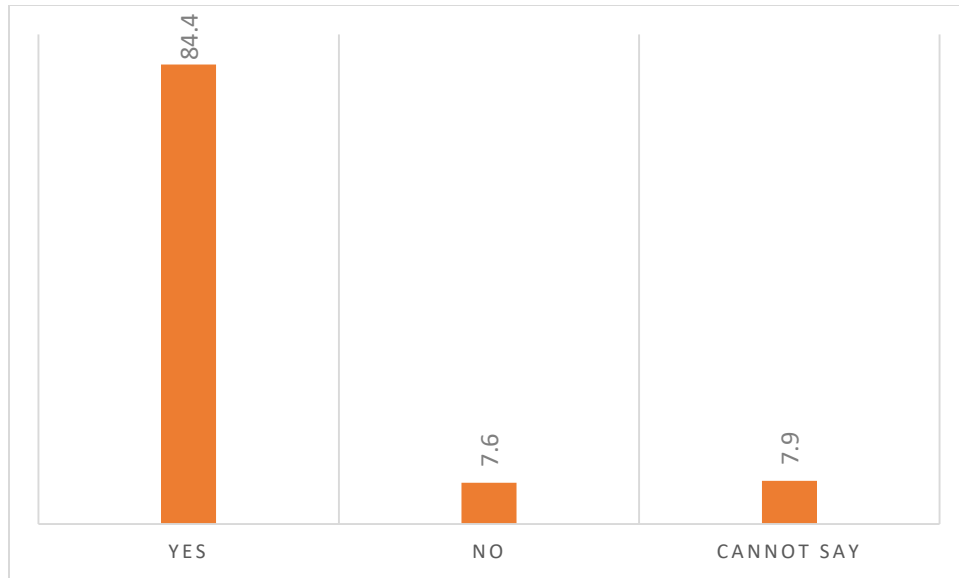


Figure16: Distribution of Respondents' View on MPAFAC Meeting Members' Expectations
 Source: Field Survey, 2018

Questioning respondents' on MPAFAC living up to expectations (Figure 16), it was found that about 84.0% were affirmative. The implication of the overwhelming responses is that MPAFAC has been living up to members' expectations.

Reasons adduced by those who felt otherwise include: poor leadership, unrealistic terms of engagement, inability to access capital and inadequate capital to expand their *Paddy* growing business.

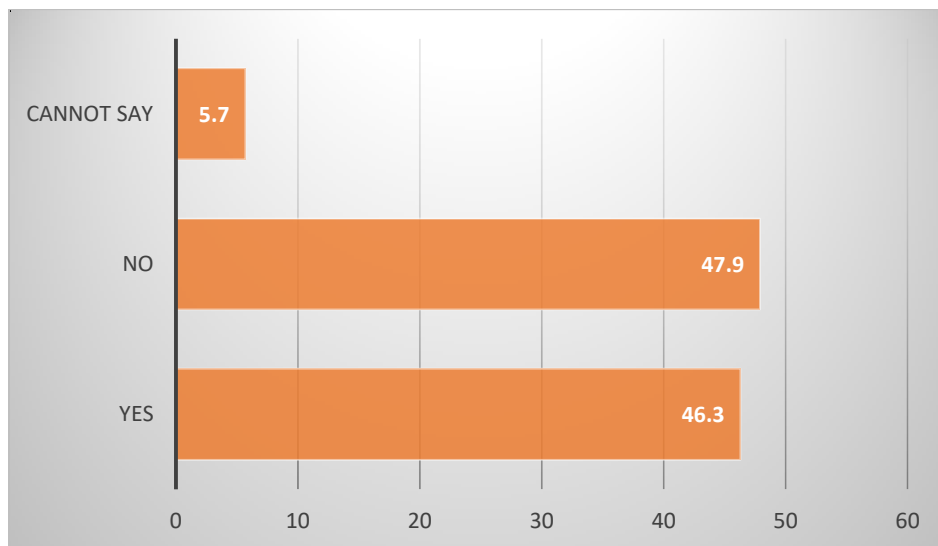


Figure 17: Distribution of Respondents' Awareness of Similar Organizations within the Study Area
 Source: Field Survey, 2018

Awareness by MPAFAC members of organizations playing similar roles and responsibilities as MPAFAC in the study area was rife among about 46.0% of them. Although this percentage is highly significant, it is strongly believed by the researcher that most of the respondents in this category could be making references to individual farmers’ groups operating outside the study area.

A measure of MPAFAC’s competitiveness within the value chain in the study area revealed similar findings to that of awareness as there was another divided opinion affirming or otherwise the company’s competitive advantage. However, members with positive description of MPAFAC as “Very-Competitive” and “Competitive,” outweighed their counterpart 65.0% to 35.0% ration.

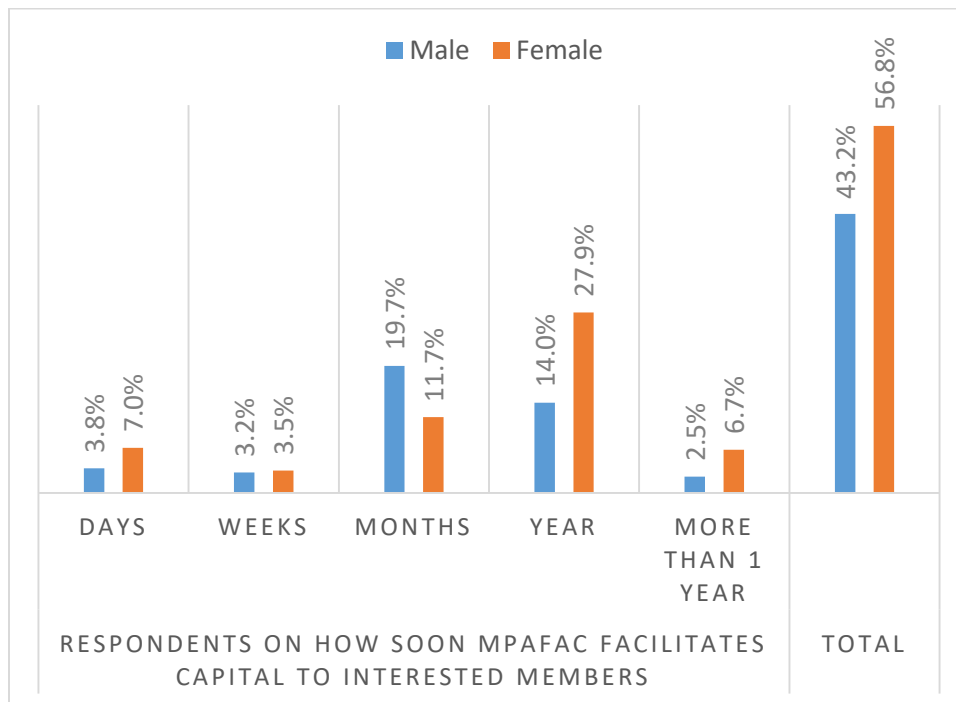


Figure 18: Distribution of Respondents' Views on Frequency of MPAFAC Assistance on Capital Access to Members
 Source: Field Survey, 2018

Opinions on the rate of MPAFAC assistance to members on capital access varies (Figure 18). About 42.0% of the respondents return an annual assistance opinion and 63.0% of those who holds this opinion are female members. *Vision Funds Tanzania Microfinance Bank* has similarly

reinforced this position too, confirming an annual disbursement of loans to interested and pre-qualified MPAFAC members.

4.6 RESEARCH OBJECTIVE 3: To identify requisite conditions and synergies required of smallholder farmers to access capital facilitated by MPAFAC.

4.7 RESULTS BASED ON RESEARCH OBJECTIVE 3:

The study attempted an identification of a number of conditions required of any MPAFAC member to access capital facilitated by MPAFAC. A handful of some of the conditions identified in the course of this study include: age, education, marital status, MPAFAC leadership and the composition of MPAFAC present leadership and their perceived ability to influence access to capital.

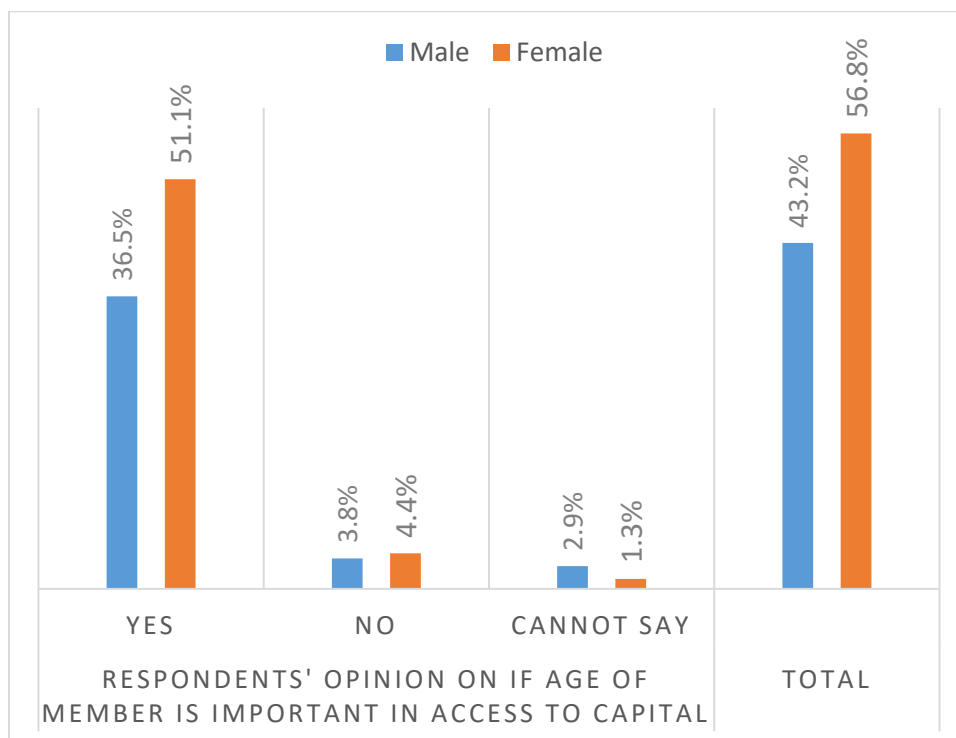


Figure 19: Distribution of Respondents' Views on Age as Requisite to Capital Access Through MPAFAC
Source: Field Survey, 2018

Majority of the respondents (88.0%) with about 58% being female members, acknowledged the importance of members' Age as one of the requisite to capital access in MPAFAC Company.

However, 12.0% of the respondents disagreed and or could not offer an opinion on the importance of Age in access to capital.

The implication of the foregoing is that access to capital by members who are either below or above a particular age bracket would not be able to access capital. Further check with MPAFAC and *Vision Fund Tanzania Microfinance Bank* (MIVARF Banking Partner for the Programme), reveals that farmers under the age of 18, and students within the school age of 18 are not allowed to become a member of MPAFAC.

Reasons cited by respondents with differing opinion on the importance of members’ age in access to capital include: personal experience in access to capital at old age, rules flexibility and capacity to enable loan repayment.

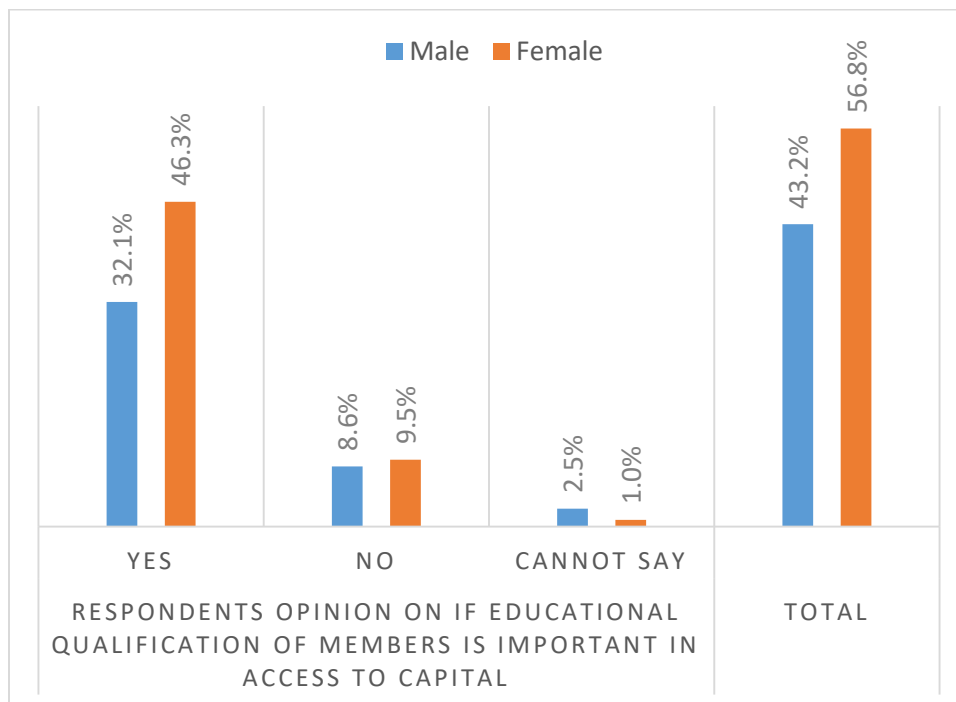


Figure 20: Distribution of Respondents Views on Educational Status As Requisite to Capital Access Through MPAFAC
Source: Field Survey, 2018

The implication of educational qualification as requisite to MPAFAC capital access when investigated (Figure 20) revealed that 20.0% of MPAFAC members have no formal education and cannot be denied loan.

However, about 78.0% of the Respondents affirmed Education as a crucial factor in Access to Capital. Only about 18.0% differed in opinion and affirmed that educational qualification of members is not important in having access to capital; while another 3% of the total 315 respondents did not hold any opinion.

RESEARCH HYPOTHESIS 4:

The import of respondents’ educational attainment in access to capital was subjected to further quantitative scrutiny and statistical analysis using the Chi-Square in testing the following hypotheses:

H₀: There is no significant relationship between educational attainment and income level as a smallholder farmer

H_i: There is a significant relationship between educational attainment and income level as a smallholder farmer

TABLE 4.4: CHI-SQUARE TEST OF SIGNIFICANT DIFFERENCE BETWEEN EDUCATIONAL ATTAINMENT AND INCOME LEVEL

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	47.143 ^a	12	0
Likelihood Ratio	35.523	12	0
Linear-by-Linear Association	8.384	1	0.004
N of Valid Cases	315		

a. 11 cells (55.0%) have expected count less than 5. The minimum expected count is .04.

From the foregoing, the expected probability is set at 5% while the calculated chi-square value was 47.143, and with 12 degrees of freedom. Since the asymptomatic significance, P-value (P=0) is lesser than the set 5% probability threshold, we accept H₀ and reject the *Alternate Hypothesis* that states that there is a statistically significant relationship between educational attainment of members and their income level.

Reasons offered by members who hold divergent views on the importance of education as a factor in access to capital ranged from: consistent ability to access capital facilitated by MPAFAC for members including those with low educational attainment; and the non-inclusion of educational attainment as pre-entry criterion to be fulfilled before obtaining financial supports from the Programme’s Banking partner.

Further checks with *Vision Fund Tanzania Microfinance Bank* affirmed the non-inclusion of educational attainment as a mandatory condition to be fulfilled by MPAFAC members before having access to capital. The Researcher is however of the opinion that MPAFAC members educational background would determine the available opportunities to them. The lack of higher education attainments by members could hinder their knowledge and skills acquisition to improve their business and enhance their livelihood.

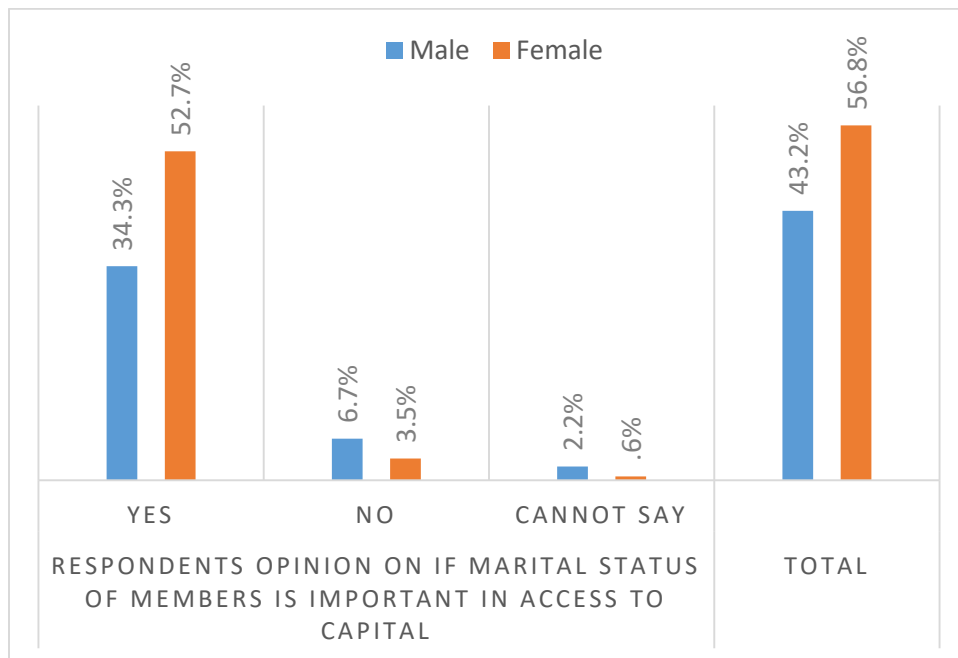


Figure 21: Distribution of Respondents' Views on Marital Status as Requisite to Capital Access Through MPAFAC
Source: Field Survey, 2018

In the true African tradition and context, marriage is an important institution; and confers a responsibility status on the married members of the society, even across the various religious faiths and their doctrines.

In Figure 21, MPAFAC members were asked whether marital status of members is important in access to capital. An overwhelming 87.0% of the respondents adjudged Marital Status as an

important criterion in access to capital by members. Most female members, numbering about 61.0% were in the category of members upholding the notion that Marital Status is important in MPAFAC access to capital drive.

Only about 10.0% of the entire respondents shared contrary opinion; while some other 3.0% of the total respondents had no opinion on marital status as an important factor in access to capital by MPAFAC members.

Reasons adduced by some of the members to buttress the non-importance of Marital Status as an important factor in access to capital by MPAFAC members ranged from: its non-inclusion as a mandatory requirement to be fulfilled before access to capital could be guaranteed by MPAFAC, precedence by some unmarried members who had gained access to capital; flexibility of membership rules, which did not emphasize members' marital status; and the large numbers of active MPAFAC members who had remained unmarried and continues to hold influential positions in their respective Production Groups.

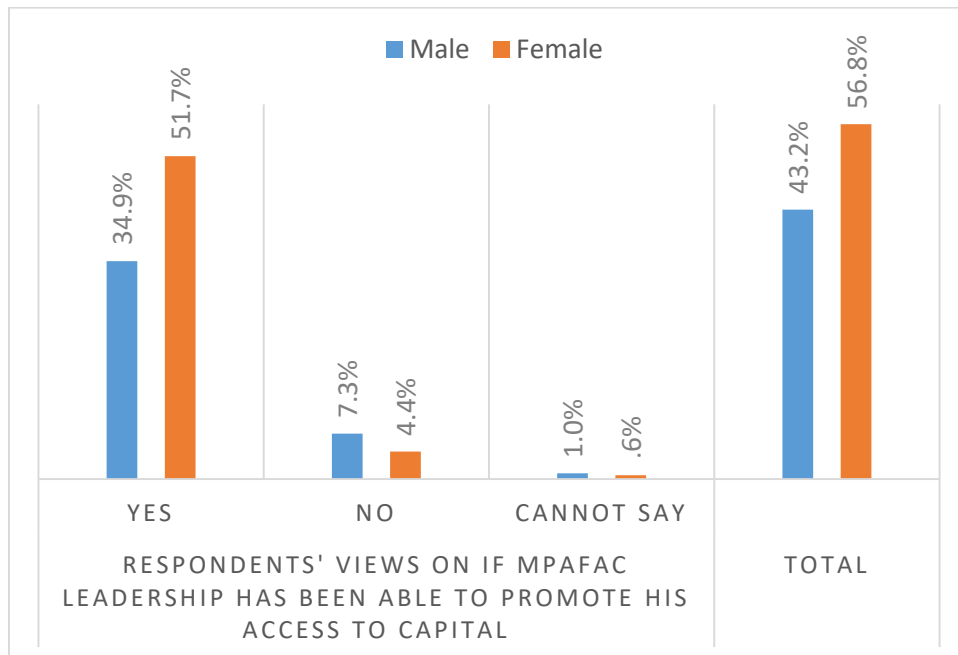


Figure 22: Distribution of Respondents' Views on the Role of MPAFAC Leadership in Capital Access Through MPAFAC
Source: Field Survey, 2018

The importance of MPAFAC leadership in facilitating capital access was investigated and the study (Figure 22) found that 87.0% of the respondents' acknowledged MPAFAC leadership as germane to their capital access compared to about 12.0% with contradictory opinion. Also, about 52.0% of those who supported the importance of leadership to capital access in MPAFAC were female members.

Those with differing opinion on leadership role in capital access based their opinion on bias and sentimental judgment, poor information management, poor relationship management and gross incompetence, which are often exhibited by some group's leadership

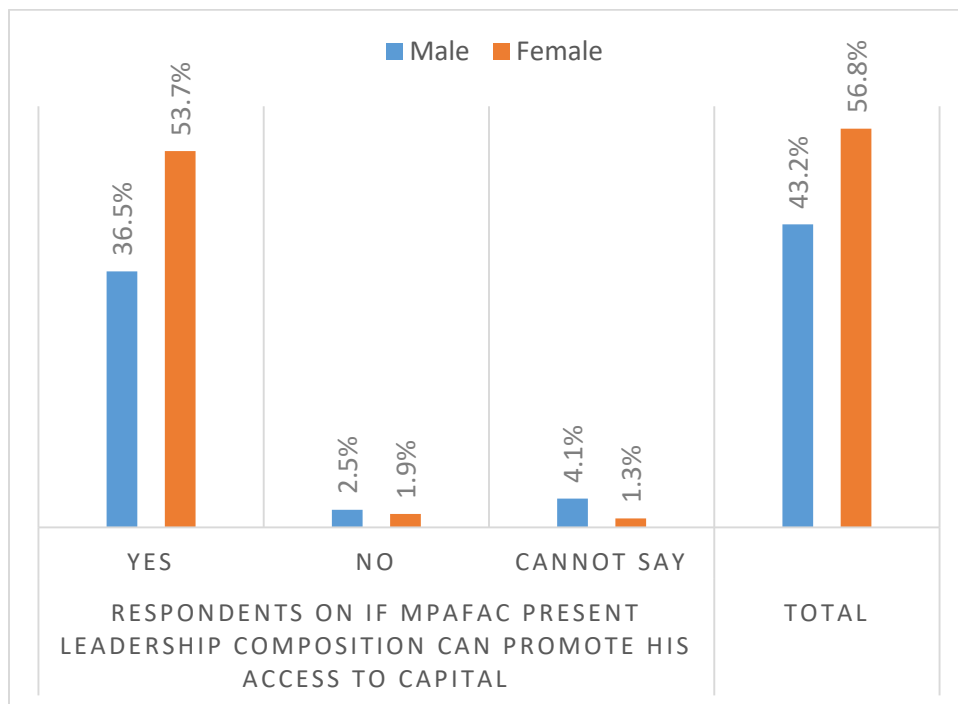


Figure 23: Respondents' Views on MPAFAC Present Leadership Composition and Ability to Promote Members' Access to Capital
Source: Field Survey, 2018

Investigating the performance of the extant leadership composition of MPAFAC Company (Figure 23), 90.0% of the respondents affirmed their capability at facilitating their access to capital. However, 4% of them differed citing: gross incompetence, poor information management, biased sense of judgment; and poor relationship management.

4.8 RESEARCH OBJECTIVE 4: To assess the roles of other stakeholders (Processors, Marketers and Banks) in access to capital.

4.9 RESULTS BASED ON RESEARCH OBJECTIVE 4:

Other than *Vision Fund Tanzania (VFT) Microfinance Bank* - the appointed Financial Service Provider by MIVARF for her Programme in the Study Area, there are no other official Financial Service Provider offering a helping hand in support of MPAFAC and her activities to members. However, some members acknowledged the roles played by some other stakeholders in Msalala District Council in their quest to access credit facilities. Among the identified but unofficial stakeholders were some Tanzanian Government licensed Commercial Banks and Microfinance Banks, which were domiciled outside the Study Area. Respondents' perceived the service of this unofficial credit access sources as timely and less cumbersome with relaxed collaterals request and they operate easily accessible organisations compared to MPAFAC official credit sources.

Even within the marketing spheres for the harvested *Paddy*, findings by this Researcher did not unearth any financial support roles by Marketing players. While it is true that price for the *Paddy* is set by the Production Committee, the Marketing Committee organizes collective marketing and often enlists the support of most Agricultural Marketing Cooperative Society (AMCOS) in the marketing and selling of the produce to institutional buyers and processors located in Kahama district, some 100 kilometres away from Msalala.

A handful of the respondents also identified and acknowledged to have received some supports (later confirmed not to be financial-related) from some other stakeholders within the production value chain (but based in Kahama Council Area), especially the Processors that include MAZAO Group, YZ Supplier Company, and the YUSUF ROMOLE Company that annually offers assurance of produce uptake.

Findings by this Researcher during Key Informant Interview (KII) sessions with these stakeholders however revealed that none of these Processors offer financial supports to the Producers, either at Individual or Group level. Beyond the formal business relationship of supply and uptake of the produce at a market determined rate, what the Processors have at best been offering in support of the individual farmers and Groups include: quality seed advocacy, transportation of harvested *Paddy* from farms, transportation incentives to farmers who brought their produce directly to the Factory, supply of jute bags for harvesting and the annual supply of Tarpaulin for the sun-drying of harvested *Paddy* between April and May to enhance the quality of the produce.

None of the interviewed Processors confirmed to have engaged in the distribution of farming inputs, especially *Paddy seeds* to individual farmers and or Groups. Rather, it was discovered that MPAFAC members have a written agreement to annually contribute two bags of *Paddy* to be sold to the Warehouse, while the proceeds from the sales would be used by MPAFAC to get inputs for the new farming season that runs from November to January. The inputs by MPAFAC are sourced via various Production Agro-dealers and subsidized by MPAFAC to members.

4.10 RESEARCH OBJECTIVE 5: identify bottlenecks and constraints to MPAFAC credit access provision drive

4.11 RESULTS BASED ON RESEARCH OBJECTIVE 5:

Although this Researcher was able to ascertain that not all MPAFAC members seek for capital in their farming business, this was so because of the reported ongoing 4-day training efforts in Good Agricultural Practices (GAP) and some financial literacy education; being coordinated by MPAFAC to boost human capital development of the members. Findings by this study revealed that a large number of the members are yet to fully embrace the lessons from these capacity building measures of MPAFAC.

Another constraint identified by MPAFAC members relate to the 5% interest rate paid monthly on the loaned principal sum, which is spread over 8 months' duration cycle of the loan facility. Although the issue of interest rates is controlled by the Bank of Tanzania (BoT) and often takes into consideration many fundamental micro and macro-economic dynamics, a large number of the sampled respondents still considered the 5% interest rate as high and fast eroding the capital value.

Similarly, some of the respondents have identified as a constraint, the limit of TZS500,000 (Five Hundred Thousand Tanzanian Shillings) about USD225, as the maximum amount that can be taken by individual members. The amount is considered incapable of servicing the extra plots of farmland needed to achieve self-sufficiency and boost respondents' livelihoods.

MPAFAC access to capital drive for members appears also to have been faced with the challenge of non-availability of secondary income sources to members. Although ownership of secondary income sources is a standard requirement from any loan applicants, most MPAFAC members are

poor peasant smallholders, cultivating majorly for subsistence with little or no secondary income sources as land, livestock and home chattels among others.

Related to the issue of secondary income sources is the lack of required collaterals to obtain a loan from the financial services provider of the development intervention (VFT Microfinance Bank) by some MPAFAC members. For instance, at the Kahama Business Centre of VFT Microfinance Bank, only 231 MPAFAC members (out of 1,021) were registered as clients; and accessed a total of TZS123,750,000 (One Hundred and Twenty-Three Million, Seven Hundred and Fifty Tanzanian Shillings) during the 2017 planting season. Required collaterals include minimum of 1-acre land ownership, home chattels, livestock and individual guarantor.

Another identified bottleneck to MPAFAC access to capital drive for her members is the seeming lack of necessary information on conditions to access credit by most borrowers. The dearth of information on conditions to access credit by most members accounted for the large number of criticism against the 5% interest rate on the borrowed principal sum by most sampled MPAFAC members. Again, in the Half-Year Report of 2016 by SEIDA, a total of 280 individual producers were reported to have received loans amounting to TZS75,050,000 from VFT Microfinance Bank as against the sum of TZS209,043,749 received from their respective Village Savings and Loans Association (VSLA) in the corresponding period. The declining number of borrowers from both VFT and the respective VSLAs is suggestive of the high interest rates and poor awareness of conditions for loan uptake. It is doubtful if most MPAFAC members are fully aware of the conditions to access credit, even within their VSLAs.

The reality of the prevailing Rural-Urban dichotomy and absence of Banks and other financial services provider in Msalala District Council is another bottleneck in the access to capital drive of MPAFAC for her members. With a huge land mass and population, it is discouraging to note that most farmers and residents of the study area had to travel a distance of not less than 50 kilometres to Kahama Town Council to access banking services and operations. This on its own is a huge burden on the residents and MPAFAC members in the study area.

CHAPTER FIVE: SUMMARY OF FINDINGS

This study affirms the increasing participation and dominance of the female gender in the Tanzanian Agricultural sector, especially in the cultivation of *Paddy*. MPAFAC remains a female dominated Farmers' Organization.

Similarly, the study identified the active involvement of three different age categories within MPAFAC in the cultivation of *Paddy*. They are: The Youths (18 and 35 years), the Middle-Age (36 and 55 years) and the Elderly (56 years and above) category. The emergence of a new crop of more Middle-Aged Farmers (53% Female, 47% Male) between 36 and 55 years was recognised. The implication of this is that the involvement of the 'Elderly' in the cultivation of *Paddy* is becoming old-fashioned, as the business of *Paddy* cultivation is now actively more in the hands of the younger generations and their attendant perennial needs.

On the educational levels, most of MPAFAC members were discovered to be Primary School Certificate Holders, while another 20% of the membership were without any formal education. This portends grave consequences and offers a shrinking window of opportunities to acquire new skills and knowledge required to boost their livelihoods.

Membership of MPAFAC by smallholder producers have also been found to be delivering on the economic, social, environmental and governance dimensions of sustainability. This study reveals that membership of MPAFAC has significantly improve the total annual income of members across the varied ages and years in farming as an occupation. There was an overwhelming acknowledgement of the importance of Capital by sampled MPAFAC members in their *Paddy* cultivation business; as only a negligible few members (about 0.6%) could not define its importance in their farming business. A significant number of the members acknowledged that access to capital was quite difficult and not an easy venture during their pre-MPAFAC membership years; and vents their displeasure with harsh remarks to describe their past experiences.

Relatedly, this study has been able to establish that MPAFAC members complied substantially with MIVARF farmland guideline of 2.5 acres and below. Only about 27% of members had farmland in excess of MIVARF Guidelines and they constituted 35% within the most popular annual income category among members.

Although land ownership is completely vested in the hands of Government in Tanzania, a new pattern of farmland ownership and acquisition was noticeable within the study area. Farmland acquisition as a Gift appears no longer to be a common occurrence, and peculiar to a handful few, while leasehold/rentage of arable land is the most common means of farmland acquisition among the majority of members.

Similarly, findings from this study confirmed that MPAFAC is increasingly meeting members' expectations; while the frequency of supports received from MPAFAC by members were also adjudged to be significantly regular. Other than access to capital drive for members by MPAFAC, aggregated opinions from members on other support areas derivable and undertaken by MPAFAC were identified to include: Farmers Education, Market Sourcing/Linkage, Selection of Subsidized Inputs, Human Capital Development Initiatives and advocacy on Good Agricultural Practices (GAP).

On the social sustainability dimension of the study, this study affirmed 18 years as the endorsed membership age of would-be MPAFAC member; while membership is not open to students. A large number of sampled MPAFAC members claimed to have derived significant benefits from their membership and would remain totally committed to it without contemplating exit whether MPAFAC was able to facilitate the much-needed capital for them or not. Only about 27% of the members who have derived benefits from MPAFAC expressed their resolved to leave MPAFAC.

Members awareness of similar organizations as MPAFAC in the study area is limited, only about 46% others claimed to be aware of the existence of similar organizations as MPAFAC. Even, some MPAFAC members were also discovered to belong to some of these similar organizations with responsibilities as MPAFAC. It is strongly believed that most of the respondents who claimed to be aware of similar Farmers' Organization could be making references to individual Producers Group within the study area, or others operating outside the study area.

The study has also been able to affirm and define the proper place of such hitherto recognized conditions regarded as mandatory requirements in the drive to access capital. Such include: Age, Education, Marital Status, MPAFAC Leadership, Present MPAFAC Leadership Composition and its influence to facilitate capital. Although sampled members acknowledged their importance and relevance, none of these conditions was ever indicated as a mandatory requirement to be fulfilled by the partnering financial service provider.

Other than VFT Microfinance Bank, this survey has also been able to reveal that there are no other official Financial Service Provider offering a helping hand in support of MPAFAC and her activities to members. Not even the Marketers and the Processor Groups were ever involved in facilitating and or credit administration for MPAFAC members. What they have at best offered in terms of supports to MPAFAC members relate to Advocacy on Quality Seed, Transportation of harvested *Paddy* from farms, Transportation incentives to farmers who brought their produce directly to the Factory, Supply of jute bags for harvesting and the annual supply of Tarpaulin for the sun-drying of harvested *Paddy*.

On the Environmental sustainability dimension, this study affirms the months of November to January as the crucial planting season for the *Paddy*. Although Tanzania operates a single planting season for *Paddy*, the harvest season starts from April to May; while the months of September to March usually witnessed scarcity of *Paddy*; when farmers usually earns more money from their stored produce.

Another environmental sustainability dimension from the study is the revelation that *Paddy* cultivation is still being done under rain-fed condition; while the shift from the use of crude implements as hoe and animals to mechanized farming and irrigation is still at its infancy in the study area.

Similarly, the Good Agricultural Practices advocacy that has become the hallmark of MPAFAC's advocacy among her members appears a positive step in the direction of environmental sustainability.

In the direction of Governance sustainability, results from this study emphasizes the sustainability of the MPAFAC intervention model by MIVARF. What appears a 'vote of confidence' on MPAFAC and her Leadership were revealed in the overwhelming level of loyalty

to MPAFAC by her members and their decision not to leave MPAFAC whether MPAFAC was able to facilitate their access to capital or not. Interesting also is the fact that a large majority of members affirmed that MPAFAC present Leadership Composition is capable of facilitating their Access to Capital

Worthy of note also is the frequency of supports from MPAFAC adjudged by the majority of the sampled respondents as ‘regular.’ Other areas of MPAFAC supports to members identified by members include: Farmers’ Education, Market Sourcing/ Linkage, Selection of Subsidized Inputs, Human Capital Development Initiatives and Good Agricultural Practices (GAP) Advocacy. In all, the pervading air of commitment of MPAFAC members to the ideals of the Company depicts a common ownership spirit and strong camaraderie among the leaders and the led.

5.1 CONCLUSION

The MIVARF development intervention programme is a worthy model in addressing food production challenges, including food security and welfare of the smallholder. It sought to also address in an ingenious way, one of the age-long challenges that has been confronting smallholder producers, capital. With MPAFAC and its ongoing roles in improving smallholder producers access to capital, Tanzania’s hurdle in self-reliance and self-sufficiency drive in *Paddy* cultivation and an enhanced income that supports livelihood for the smallholder producers from various value-addition undertakings is right on course.

While it is true that there is so much ground to be covered by MPAFAC in achieving its core mandate, the positive re-orientation of members toward profitable linkage to the market, and good agricultural practices by members within its short formation period now spanning 3 years is highly commendable.

There is no denying the fact that MPAFAC, as it stands in operations today, is a monopoly, carefully crafted to provide the necessary capacity building to the Producers and the Marketing Groups operating within the study area. As the umbrella body for all *Paddy* cultivating Groups in the study area, MPAFAC in all intents and purpose, remains the sole Company backed with Government-might of MIVARF and her strategic infrastructural supports primed to alter the market landscape. As at the time of this study, there was no other known umbrella body as MPAFAC in the study area involved in the cultivation of *Paddy* and welfare of the members.

Although MPAFAC is populated by rural; but active poor, the identified challenges confronting its operational efficiency and maximum delivery of benefits to members deserved to be speedily addressed. Such challenges include the financial constraints of MPAFAC leadership; the Board members are the worst hit! It is a voluntary service with no perks of office as sitting or lunch allowances for the leadership.

Irregular attendance at meetings (Regular and Special) often characterized MPAFAC membership. The poor attendance regularly recorded usually denied the formation of quorum required to take important business decisions. This Researcher witnessed a number of low attendance by members at scheduled meetings across some of the villages covered in the course of this study. Twice in the course of the study, MPAFAC Board members were unable to form the required quorum for their 2018 first quarter meeting. They were also unable to reconvene at the next adjourned date over low attendance.

A number of members were able to identify and quick to raise the issue of high entry-fee for new members and the annual fee by Groups to MPAFAC as some of the factors militating against the continuous growth of MPAFAC. Annually, each Group is expected to make a payment of TZS100,000 (One Hundred Thousand Tanzanian Shillings), about USD45, while a new member makes a one-off payment of the sum of TZS50,000 (Fifty Thousand Tanzanian Shillings), about USD22. It these statutory payments that has been frowned at by a section of MPAFAC membership.

Related to this is the perceived high interest rates charged on the loaned amount by MIVARF partnering Financial Service Provider. While interest rate determination is strictly a regulatory matter within the purview of Bank of Tanzania, the hue and cry from the smallholder producers and MPAFAC's seeming inability to offer a business-friendly alternative.

Although *Paddy* cultivation in Tanzania is still done under rain-fed condition, with little or no consideration for irrigation and mechanized farming by most members owing to its huge cost implication, little also is known of efforts initiated by MPAFAC and its leadership to mitigate the effect of climate change currently threatening the source of livelihoods of most MPAFAC members. It is becoming obvious that MPAFAC would need to do more advocacy and enlightenment on climate change and its implications on food security and farmers well-being.

The inaccessible and remote locations of some Production Groups under MPAFAC is another daunting challenge presently confronting MPAFAC and her teeming members. The inclement weather and the topography of some locations within the study area makes them flood-prone and inaccessible, especially during the rainy season. Sequel to this, productivity of members is greatly impaired as most of them are rendered inactive and unable to access their farmlands.

Finding a lasting solution to all of the identified challenges currently facing MPAFAC would obviously reposition MPAFAC and warm the hearts of most of her stakeholders, just as the objectives of her formations becomes much more realistic and attainable without leaving anyone behind.

5.2 RECOMMENDATIONS:

The success story of MIVARF and MPAFAC can only become much better by empowering the smallholder farmers to lift them out of their present circumstances that is largely riddled with poverty. Addressing “incomes and food security of the target group on a sustainable basis” would only become achievable if all the stakeholders are united in their various approaches to confront rampaging rural poverty across the study area.

A pragmatic approach is required to remove the long list of challenges currently faced by MPAFAC, hence the imperative of the following recommendations.

5.3 INDIVIDUAL:

There is no denying the fact that a whole lot of MPAFAC members are poor peasants struggling to be lifted out of the poverty band. The poor circumstances of most members and the crippling burden of their large family responsibilities and needs required that they should be assisted, and supported in their farming occupation; especially since they do not stay with cash, and possesses little or no savings culture. A result-oriented initiative as MPAFAC and its ongoing efforts in facilitating members’ access to capital requires unalloyed support and cooperation of members.

In this respect, a sustained programme of activity geared at mobilization and re-orientation of members’ mindset to the goals of MPAFAC should be encouraged more to deliver on such requisite needs similar to extramural adult education classes to offer and boost existing knowledge gaps, imbue members with skills and training in financial literacy, record keeping, post-harvest handling and to see farming as a business.

Related to this is the inability of most individual members of MPAFAC to develop a dependable secondary sources of income. Most members are actively engaged in mono-cropping, cultivating *Paddy* exclusively and active only on their respective farmlands during the planting and harvest seasons of November to January and April to July respectively. They are mostly idle during the months of February, March, August, September and October; with little or no income earned during these period, thus putting more pressure on the little disposable income left. Diversification of farmlands to plant such crops as maize, vegetables, including livestock rearing and gardening during off-seasons would go a long way to develop and boost individual farmer's income streams and pre-qualifies them for credit facilities consideration by the financial service providers.

5.4 MPAFAC:

While the membership strength of MPAFAC has continued to grow since inception, it is probably an understatement to suggest to the leadership to rest on their oars. Indeed, so much is still required from this burgeoning Company. Across the vast arable land of Msalala District Council, this Researcher observed a number of many *Paddy* farmers who do not belong to any MPAFAC affiliated Producer Groups. This large numbers of non-MPAFAC members should be reached-out to, and transform MPAFAC into a broad-based farmers' organization encouraging members to carry their own destinies in their own hands.

Similar to this is the recommendation that MPAFAC should relax some of her terms of engagement, especially those found inimical to the collective interest of members and their overall prosperity. The one-off payment of TZS50,000 (Fifty Thousand Tanzanian Shillings) as membership entry fee is regarded as burdensome to a new member struggling to eke out a living from farming. The same applies to the annual contribution of TZS100,000 (One Hundred Thousand Tanzanian Shillings) as retainership fee paid by Production Groups to MPAFAC.

The current membership age restriction that forbid students of less than 18 years old from MPAFAC membership requires a rethink and policy redirection. This Researcher is of the opinion that MPAFAC should allow for more flexibility in the Production Group's membership rules and regulation. Although the current level of members without formal education is at about 20%, there is still the need to encourage and actively involve the large number of Tanzanian

students in the farming business to increase entrepreneurship and wealth creation if agriculture would continue to remain as the mainstay of the country's economy.

MPAFAC is also required to step-up her advocacy initiatives to support members with regular and periodic information to lead members to the discovery of more capital access sources and conditions to access credit; this is in order to counter the prevailing low awareness of access sources and conditions to access credit among members.

Although agitations have been rife among some of the farmers on the need for MPAFAC to intervene and influence the removal on loan limit of TZS500,000 (Five Hundred Thousand Tanzania Shillings) available to MPAFAC members, this Researcher is of the view that the request is uncalled for and could breed profligacy among these crop of peasants tending only 2.5 acres of farmland approved under the MIVARF guideline. Although loan recovery has been at an excellent rate, the lure to increase the limit now especially in the face of the pestering challenges of climate change and the relatively young age of MPAFAC could breed human excesses and make the recovery of such loans to become unrealistic.

5.5 GOVERNMENT:

Although the voice of the government of the United Republic of Tanzania's and her roles in this development intervention is being echoed and moderated by MIVARF, especially through a number of her pre-selected Service Providers such as the Small Enterprises Institutional Development Associates, SEIDA in the study area, undertaking many activities on project monitoring and evaluation, the yawning gap among some of the Producers' Groups is for the Government to wield its big stick and bridge the noticeable rural-urban dichotomy gap among the financial service providers, especially over their long absence and non-operation across the study area.

The increasing role of the Bank of Tanzania (BoT) in the day-to-day management of the country's economy and monetary policies is pivotal in ensuring stability of the micro and macroeconomic indices of the Country. Going by the records of impressive loan repayment by MPAFAC members, it has become imperative that concerted efforts be put in place by the Government through the BoT and her partnering commercial and microfinance banks to increase the pool of funds to be made available and accessible to performing farmers' organization as MPAFAC. Although a concrete business relationship between MIVARF and Vision Fund

Tanzania Microfinance Bank commenced only in late 2016, available records from the Bank indicates that a total sum of TZS123,750,000 (One Hundred and Twenty-Three Million, Seven Hundred and Fifty Thousand Tanzanian Shillings) only was disbursed to only 231 (about 23%) MPAFAC members in the Kahama Town Council during the 2017 farming season. The numbers of beneficiaries appear paltry, especially considering the fact that MPAFAC membership within the study area is in excess of a thousand. It is obvious that if this pool of funds is increased and extended to more members, output from farming would assume increased upswing with a win-win benefits to all the stakeholders and the country at large.

Related to this is the issue of Interest Rates management that have been raised by most beneficiaries of accessed capital facilitated by MPAFAC. For instance, the MAZAO Group, an association of off-takers and millers for *Paddy* based in Kahama, claimed to have taken a loan of the sum of TZS20million in 2017 at an interest rate of 22% to expand her business. The Management of the Group complained bitterly on the conditions given to access the facility and also the excruciating pains they experienced during the loan repayment period. The sad commentary on high interest charged by the financial service provider is not limited to MAZAO Group alone, most beneficiaries of capital facilitated MPAFAC shared same opinion. It remains uncertain if perhaps there are some other charges behind the generally declared 5% interest rates on the principal sum taken.

A pragmatic review of the entire interest rate regime and its harmonious management is therefore suggested for a fundamental sector as agriculture. The creation of a Revolving Fund similar to the EAC climate finance mechanism to mitigate climate change effects by the Government of Tanzania is imperative for farmers to access loans at a concessionary interest rate. This would not be out of place for Tanzania to redefine her preeminence in ensuring self-sufficiency and assuring food security for her citizens and the entire East African Community (EAC) countries.

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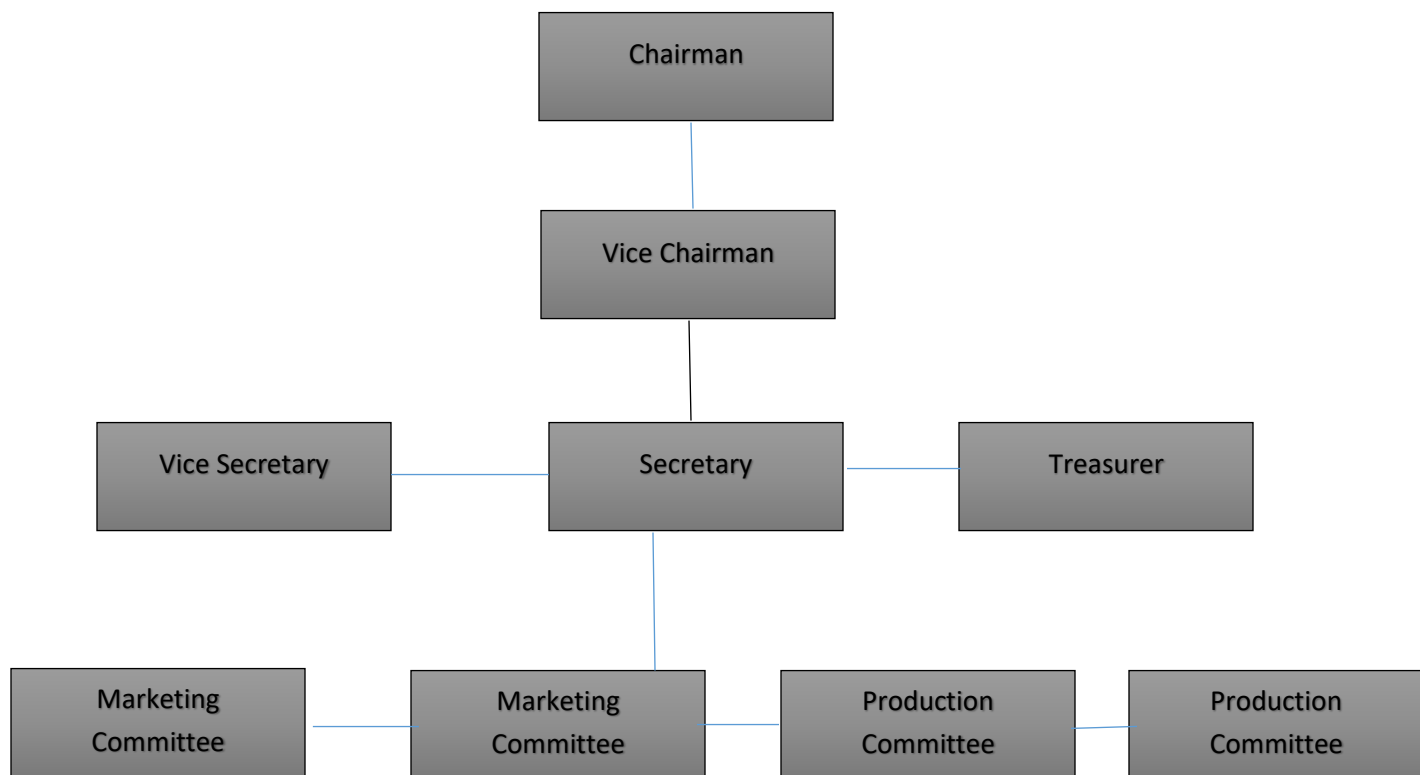
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APPENDICES:

APPENDIX 1: MPAFAC BOARD OF DIRECTORS



APPENDIX 2: PLAN OF THE STUDY:

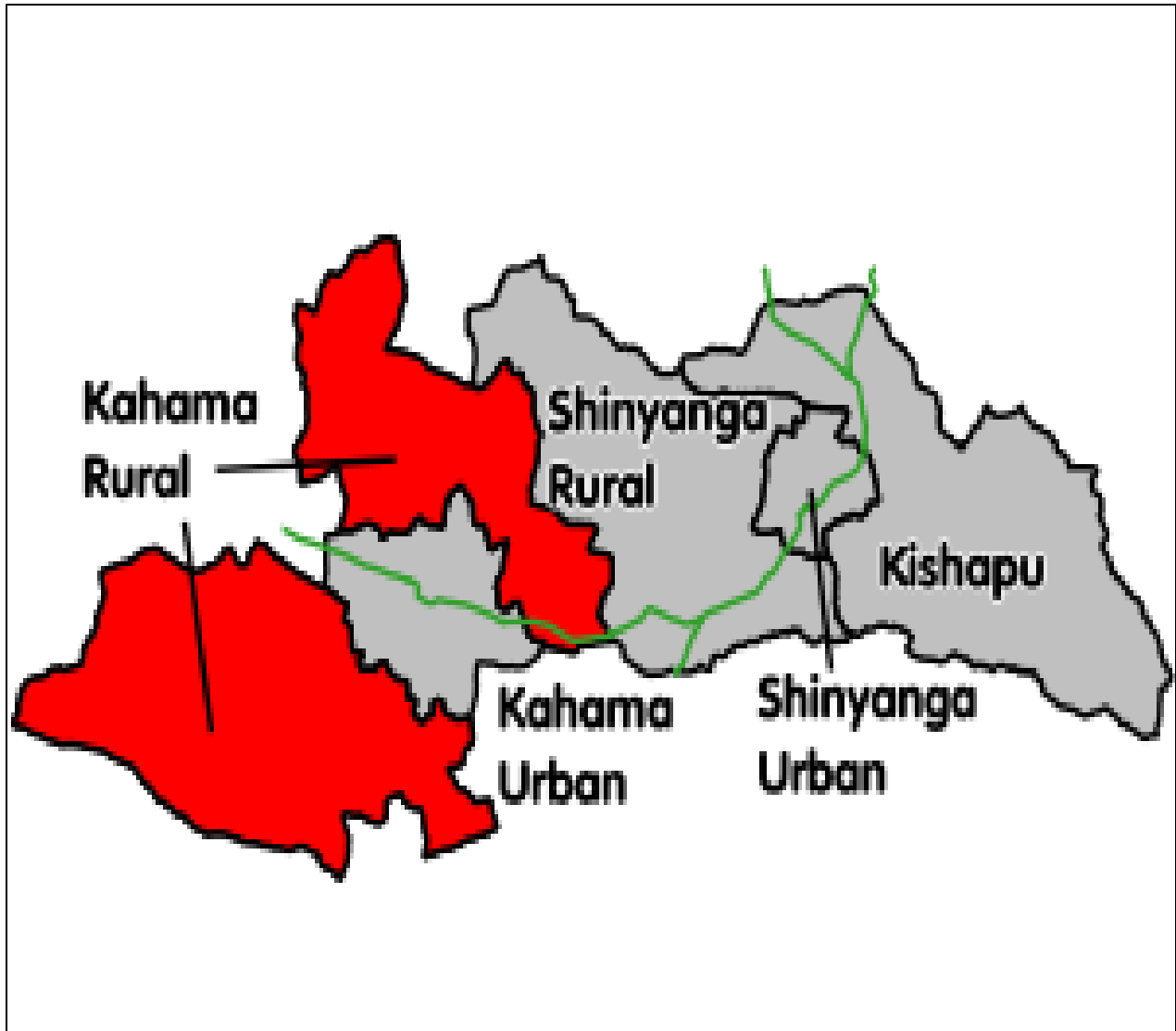
The survey is part of the *Win-Win Field Practicum Grant* of the International Fund for Agricultural Development (IFAD) in partnership with the Global Master's in Development Practice (GLOBAL MDP) designed for Postgraduate students in partner Universities across the world; undergoing course of study in Development Practice. This study was undertaken within the three months' timeline approved as part of this researcher's Internship Period requirement for the award of the degree of Masters' in Sustainable Development Practice (SDP).

The itinerary for the successful completion of the Study is as stated in this work plan:

Calendar Weeks	Activities
1 st Week of March, 2018	Review of Baseline study and formulation of research Questionnaires and Interview guide.
2 nd Week of March, 2018	Conduct a Pretest of the survey instrument
3 rd to 4 th Week of March & 1 st to 2 nd Week of April, 2018	Data gathering exercise on membership of the Farmer's Organization (MPAFAC)
3 rd Week of April, 2018	Data gathering exercise with the suppliers and markets actors within the production value chain
4 th Week of April, 2018	Revisit to the field for clarifications
1 st Week of May, 2018	Coding and entry of data
2 nd Week of May, 2018	Data Analysis
3 rd to 4 th Week of May, 2018	Write up of the Report

4 th Week of June, 2018	Presentation and submission of the Preliminary Report
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**APPENDIX 3: ADMINISTRATIVE MAP OF SHINYANGA REGION SHOWING
KAHAMA TOWN COUNCIL**



Source: Msalala District Council, 2018

APPENDIX 4: SAMPLE STRUCTURED QUESTIONNAIRE

QUESTIONNAIRE

**EFFECTIVENESS OF COLLECTIVE ACTION/FARMER ORGANIZATION IN IMPROVING
SMALLHOLDERS PRODUCER ACCESS TO CAPITAL: A CASE STUDY OF MSALALA PADDY
FARMERS COMPANY (MPAFAC) IN MSALALA, SHINYANGA. TANZANIA**

Dear Respondent,

This survey is aimed at assessing the Effectiveness of Collective Action/Farmer Organizations in improving Smallholder Producer Access to Capital: A Case Study of Msalala Paddy Farmers Company (MPAFAC) in Msalala, Shinyanga. Tanzania. This questionnaire is designed to elicit truthful information from Smallholder Farmers who are part of this Farmer Organization.

Be rest assured that all information obtained will be treated with strict confidentiality.

Thank you for your anticipated cooperation.

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENT

S/NO	QUESTION	RESPONSE	CODING	SKIP TO (WHERE NECESSARY)
101	What is your Gender?	Male	1	
		Female	2	
102	What is your Age?	18-35 Years	1	
		36-55 Years	2	
		56 Years and Above	3	
103	What is your Religion?	Christianity		
		Islam		
		Traditional		
		Aethist		
		Other (Please Specify)_____		
104	What is your Highest Educational Qualification?	No Formal Education	1	
		Primary Education	2	
		Secondary Education	3	
		Vocational/Technical Education	4	
		Polytechnic/University Education	5	
		Other (Please Specify)_____		

105	What is your Total Annual Income?	Below TSh200,000	1	
		TSh201,001 - TSh400,000	2	
		TSh400,001 - TSh600,000	3	

		TSh600,001 - TSh800,000	4	
		TSh800,001 - TSh1,000,000	5	
		TSh1,000,001 - Above	6	
SECTION B: STATUS, MEMBERSHIP, AWARENESS, ROLE & PERCEPTION OF MPAFAC				
201	Are you a Smallholder Farmer?	Yes	1	
		No	2	
202	How long have you been into Farming as an Occupation?	Less than 1 Year	1	
		1.5 - 5 Years	2	
		5.5 - 10 Years	3	
		10.5 Years and Above	4	
203	What is the Size of your Farmland?	0.3 - 2 Acres	1	
		2.5 - 4 Acres	2	
		4.5 - 6 Acres	3	
		6.5 and Above	4	
204	How did you Acquire the Farmland?	Inheritance	1	
		Gift	2	
		Purchase	3	
		Leasehold	4	
205	Are you a Member of Msalala Paddy Farmers Company (MPAFAC)?	Yes	1	
		No	2	
		Intending	3	
206	Aside MPAFAC, are you also a Member of any other Farmers Organisation?	Yes	1	
		No	2	
207	If YES to Question 206, please state the name(s) of the Farmer Organisation			
208	How long have you been a Member of MPAFAC?	Less than 1 Year	1	
		1.5 - 5 Years	2	
		5.5 - 10 Years	3	
		10.5 Years and Above	4	
209	Please State your Reasons for Joining MPAFAC			
210	Has your Membership of MPAFAC yielded any benefits to you?	Yes	1	SKIP TO 212
		No	2	
		Cannot Say	3	

211	If NO, please state reasons for your Opinion?	<hr/> <hr/> <hr/>		
212	Would You think of Leaving MPAFAC as a Result of the Opinion You Expressed in Question 211 above?	Yes No Cannot Say	1 2 3	
213	Is Capital an important Necessity to you as a Smallholder Farmer?	Yes No Cannot Say	1 2 3	SKIP TO 215
214	If NO, please state reasons for your Opinion?	<hr/> <hr/>		
215	Before Joining MPAFAC, how easy was Access to Capital to your Farming Business?	Very Easy Easy Not Easy Difficult Very Difficult	1 2 3 4 5	
216	Has MPAFAC ever been helpful to your Access to Capital as a Farmer?	Yes No Cannot Say	1 2 3	SKIP TO 218
217	If NO, please state reasons for your Opinion?	<hr/> <hr/>		
218	Apart from facilitating Access to Capital, in what other way(s) has MPAFAC been supporting Members?	<hr/> <hr/> <hr/> <hr/>		
219	How Regular are the Supports from MPAFAC?	Very Regular Regular None Irregular Very Irregular	1 2 3 4 5	
220	Is MPAFAC truly living up to expectations of Smallholder Farmers like you?	Yes No	1 2	SKIP TO 222

221	If NO, please state reasons for your Opinion?	Cannot Say	3	
222	Are you Aware of any Similar Farmer Organisation with Simillar Roles and Responsibilities in Msalala, Shinyanga?	Yes No Cannot Say	1 2 3	
223	How competitive has MPAFAC been in her Support Roles and Responsibilities when Compared to other Farmer Organization?	Very Competitive Competitive Poor Non-Competitive Poorly Competitive	1 2 3 4 5	
224	How has being a Member of MPAFAC affected your Income level as a Smallholder Farmer?	Very Significantly Significantly None Insignificant Quite Insignificant	1 2 3 4 5	

SECTION C: MPAFAC COMPOSITION, MEMBERS PARTICIPATION & ACCESS TO CAPITAL

301	Which Gender Group represents the Majority in MPAFAC?	Male Female	1 2	
302	Do you think the Majority Gender Group of MPAFAC can influence Access to Capital?	Yes No Cannot Say	1 2 3	SKIP TO 304
303	If NO, please state reasons for your Opinion?			
304	Is MPAFAC ever supportive of Access to Capital to the FEMALE Gender Group?	Very Supportive Supportive Rarely Not Supportive Quite Not Supportive	1 2 3 4 5	
305	Is the Age of Members important in Access to Capital in MPAFAC?	Yes	1	SKIP TO 306

		No	2	
		Cannot Say	3	
306	If NO, please state reasons for your Opinion?			
307	Is the Educational Qualification of Members important in Access to Capital in MPAFAC?	Yes	1	SKIP TO 309
		No	2	
		Cannot Say	3	
308	If NO, please state reasons for your Opinion?			
309	Is the Marital Status of Members important in Access to Capital in MPAFAC?	Yes	1	SKIP TO 311
		No	2	
		Cannot Say	3	
310	If NO, please state reasons for your Opinion?			
311	Has the Leadership of MPAFAC been able to facilitate Access to Capital for you?	Yes	1	SKIP TO 313
		No	2	
		Cannot Say	3	
312	If NO, please state reasons for your Opinion?			
313	Can the present composition of the MPAFAC Leadership promote Access to Capital for you?	Yes	1	SKIP TO 315
		No	2	
		Cannot Say	3	
314	If NO, please state reasons for your Opinion?			
315	Please State other Body within the Smallholder Value Chain that can help you in Accessing Capital?			
316	Why did you see this other Body as important to help in Accessing Capital?			

317	How often does MPAFAC assist Members to Access Capital?	Daily Weekly Monthly Yearly Bi-Annually	1 2 3 4 5	
318	How soon are Capital facilitated by MPAFAC made Available to interested Member?	Days Weeks Months Year More than 1 Year	1 2 3 4 5	
319	Without Access to Capital, would you continue to be a Member of MPAFAC?	Yes No Cannot Say	1 2 3	SKIP TO 321
320	If NO, please state reasons for your Opinion?			
321	Are Smallholder Farmers utilizing the sourced Capital for the right purpose?	Yes No Cannot Say	1 2 3	SKIP TO 323
322	If NO, please state reasons for your Opinion?			
323	What are the reasons for Failure of Smallholder Farmers Access to Capital?			
324	What do you think can be done to improve your Access to Capital by MPAFAC?			
325	Is regular Access to Capital likely to increase your Participation as a Member of MPAFAC?	Yes No Cannot Say	1 2 3	

326	If NO, please state reasons for your Opinion?			
327	What in your opinion have been the challenges facing MPAFAC since establishment?			

APPENDIX 5: SAMPLE INTERVIEW GUIDE

**INTERVIEW GUIDE ON
EFFECTIVENESS OF COLLECTIVE ACTION/FARMER ORGANIZATION IN
IMPROVING SMALLHOLDER PRODUCER ACCESS TO CAPITAL: A CASE STUDY**

**OF MSALALA PADDY FARMERS COMPANY (MPAFAC) IN MSALALA,
SHINYANGA, TANZANIA**

1. Greetings and General Introduction (Explanation of the purpose of the Exercise and the inherent benefits to the Farmers in the Study Area)
2. Please, give a brief history of MPAFAC
3. What are the requisite criteria for becoming a member MPAFAC?
4. Please, briefly analyse your involvement with MPAFAC (What you do, When, How & Why)
5. How does the organizational structure of MPAFAC looks like?
6. What has been your experience, working with about 39 Farmers' Group?
7. What would you observe as determining the socio-economic status of members of the farmer groups with which you are involved?
8. Would you say MPAFAC has been able to improve the expectations of Members along the observed socio-economic cadre line?
9. Is it TRUE that access to Capital is indeed a challenge to smallholder producers in Msalala (MPAFAC)
10. What are the various components of Capital for Smallholder producers that MPAFAC has been involved in?
11. How has MPAFAC been helping smallholder members to gain access to capital?
12. What has been the experience to MPAFAC and Smallholder Producers?
13. Has your Collective Action as a Farmer Organization been helpful to Smallholder farmers at all?
14. How many Smallholder Producers have left their respective Organisation in the past 1 year?
15. What remedies have been put in place to prevent reoccurrence and ensure membership stability?
16. Does Age, Gender, Education and Marital Status of Members play any role in access to capital?
17. Please indicate partners in the provision of Capital to MPAFAC?

18. Does the present composition of MPAFAC has the capability to influence and enhance access to Capital?
19. How soon does MPAFAC make capital available to Members?
20. Are members utilizing the sourced capital for the right purpose?
21. What are the reasons for the failures of Members to access capital?
22. What do you think MPAFAC can do more to improve members access to capital?
23. Please, indicate your perception of challenges limiting the performance of MPAFAC in agricultural credit administration.
24. Does Tanzanian Government (through her various Agencies) still have any role to play in credit administration for Farmers?
25. If YES, Please list out the roles
26. What has been the role of MIVARF (Marketing Infrastructure, Value Addition and Rural Development)?

**APPENDIX 6: THE NEWLY CONSTRUCTED WAREHOUSE BY MIVARF FOR
MPAFAC AT BULIGE VILLAGE**



**APPENDIX 7: THE NEWLY CONSTRUCTED OPEN-MARKET STALLS FOR
MPAFAC BY MIVARF AT BULIGE**



APPENDIX 8: QUESTIONNAIRE ADMINISTRATION SESSION AT BULIGE



APPENDIX 9: QUESTIONNAIRE ADMINISTRATION SESSION AT SEGESE VILLAGE

