SUSTAINABILITY OF DONOR-FUNDED COMMUNITY DEVELOPMENT PROJECTS IN TANZANIA: A CASE OF FARMER GROUPS INVESTMENT SUB-PROJECTS IN MOROGORO DISTRICT

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A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN RURAL DEVELOPMENT OF SOKOINE UNIVERSITY OF AGRICULTURE. MOROGORO, TANZANIA.

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ABSTRACT

International donors have played a significant role in development projects in Tanzania; they have assisted community/government to implement sectoral system reform. The purpose of this study was to assess sustainability of Farmer Groups Investment Sub-Projects in Morogoro District, Tanzania. The specific objectives were to: examine selected farmer groups investment sub-projects sustainability initiative process, assess the extent of stakeholders' participation in different stages of selected farmer groups investment sub-projects and examine social, economic and environmental factors related to sustainability of selected farmer groups investments sub-projects. Data were collected from 80 farmer group investment community member respondents, four extension agents, 10 key informants and various documentary sources using interview schedule, researcher's diary and checklist. Quantitative data were analysed using Statistical Package for Social Science (SPSS) computer software and "content analysis" technique was used to analyse qualitative data. It was found that sustainability of farmer groups investment sub-projects requires consideration and analysis of variety of factors which needs commitment of all stakeholders. It was recommended that the critical factors in ensuring sustainability is to facilitate and empower local communities so that they can plan for their development to ensure commitment and feel a sense of ownership, which will ensure social, economic and environmental sustainability. The study also suggested to undertake case study on interaction among stakeholders in the study area to elicit more reliable clues that would contribute to evidence based policy for sustainability of farmer groups investment sub-projects.

DECLARATION

I, Flora Valantine Mlage, do hereby declare to the Senate of Sokoine University of Agriculture that this dissertation is my own original work done within the period of registration and that it has neither been submitted nor being concurrently submitted for degree award in any other institution.

..... **…….....**

Flora Valentine Mlage **Date**

(MARD. Candidate)

The above declaration is confirm

..... **…….....**

Prof. R. M. Wambura **Date**

(Supervisor)

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DEDICATION

This work is dedicated to the Almighty God, my parents, the late Mr. Valentine Mlage and Mrs. Blandina Mlage, who laid the foundation and invested a lot for my education since Primary School Level.

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LIST OF ABREVIATIONS

ADB	African Development Bank
ASARECA	Association for strengthening Agricultural Research in Eastern and Central Africa
CDPs	Community Development Projects
CEO	Chief executive officer
CIS	Community Investment Subproject
DAS	Distributed Annotation System
DFT	District Facilitation Team
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
FGIS	Farmer Group Investment Subproject
FGMs	Female Group Members
GM	Group Member
HBS	Household Budget Survey
IFAD	International Funds for Agricultural Development
JG	Juhudi Group
MG	Mfano Group
MGMs	Male Group Members
PADEP	Participatory Agricultural Development and Empowerment Project
PCU	Project Coordination Unity
PELUM	Participatory Ecological Land Use Management
PRA	Participatory Rural Appraisal
PRS	Poverty Reduction Strategy
SFGMs	Small Farmer Group Members

SUA	Sokoine University of Agriculture
TG	Twinuke Group
TZS	Tanzania shillings
UG	Upendo Group
URT	United Republic of Tanzania
WCED	World Commission on Environment and Development

CHAPTER ONE

1.0 INRODUCTION

1.1 Background Information

International donors have played a significant role in assisting communities or governments to implement sectoral system reform strategies in developing countries. With increased involvement of donor agencies in sectoral reform efforts, two concerns have gained paramount importance and attention: effectiveness and sustainability (Homedes, 2001; Hak and Dahl, 2007). The sustainability issue to development activities became important to donors since the1980s (Scoons, 2007). Donors use sustainability as one of yardsticks in evaluating development interventions and become the basic purpose for donors to provide aid in achieving or promoting development (Komalawati, 2008). A project is sustainable if there are sustainability strategies formulated from the designing phase, also the chances for sustainability can be influenced by how the project is managed, monitored and evaluated. Project sustainability is indicated by the ability to continue to meet objectives defined in terms of benefit levels. Projects produce specific benefits for targeted beneficiaries which ideally should continue to increase after project completion (IFAD, 2009).

According to URT (2009), Tanzania has put in place policies and strategies on poverty alleviation. These include Poverty Reduction Strategy (PRS) which was finalised in 2000. The strategy has enabled the government to make some achievements in reducing poverty in respect to non-income poverty such as education and water. The country has also put in place safety-nets directed at protecting the economies of the poor. One important initiative in this area is the Participatory Agricultural Development and Empowerment Project

(PADEP), which was launched in 2003/04, and closed in 2007/08 in eight pilot districts in Tanzania, including Morogoro District.

The overall goal of the PADEP was to increase farmers' incomes and food security through alleviation of the communities' priority constraints to increased and sustained agricultural productivity. The specific objectives of the project were to: increase capacities of the village communities and farmer groups in planning and implementation of agricultural development projects; strengthen capacities of services delivery agents, focusing on the communities priority agricultural development constraints, needs and goals; increase role of the private sector in provision of agricultural inputs services to the farming communities and marketing of agricultural outputs. To achieve these objectives and in order to reach the farming communities more effectively, the project allocated 75% of the funds to the local level (Villages and Districts) investments (URT, 2006). There were two types of village level investments: Community Investment Sub-projects (CIS) and Farmer Groups Investment Sub-projects (FGIS). The factors affecting sustainability of the PADEP interventions were viewed in terms of the physical infrastructure established which provide the services needed by the community. The knowledge, skills and experiences gained during the project is used for livelihoods activities. Financial Sustainability Avenue is services fees from the completed CIS (PELUM, 2008; World Bank, 2011).

Morogoro Region (where data for this study were collected) is one of the 30 administrative regions in Tanzania (Fig. 1). The region has an area of 72 939 km^2. Administratively, it is divided into seven districts. It comprises 457 villages which are grouped into 140 wards and 30 divisions with population of 2 218 492 (URT, 2013). Due to its fertile soils, favourable rainfall and a wide range of altitudes a number of crops are grown in the region. Cotton, coffee, sisal, sunflower and simsim are the major cash crops. The major food crops grown are paddy and maize as well as vegetables and fruits.

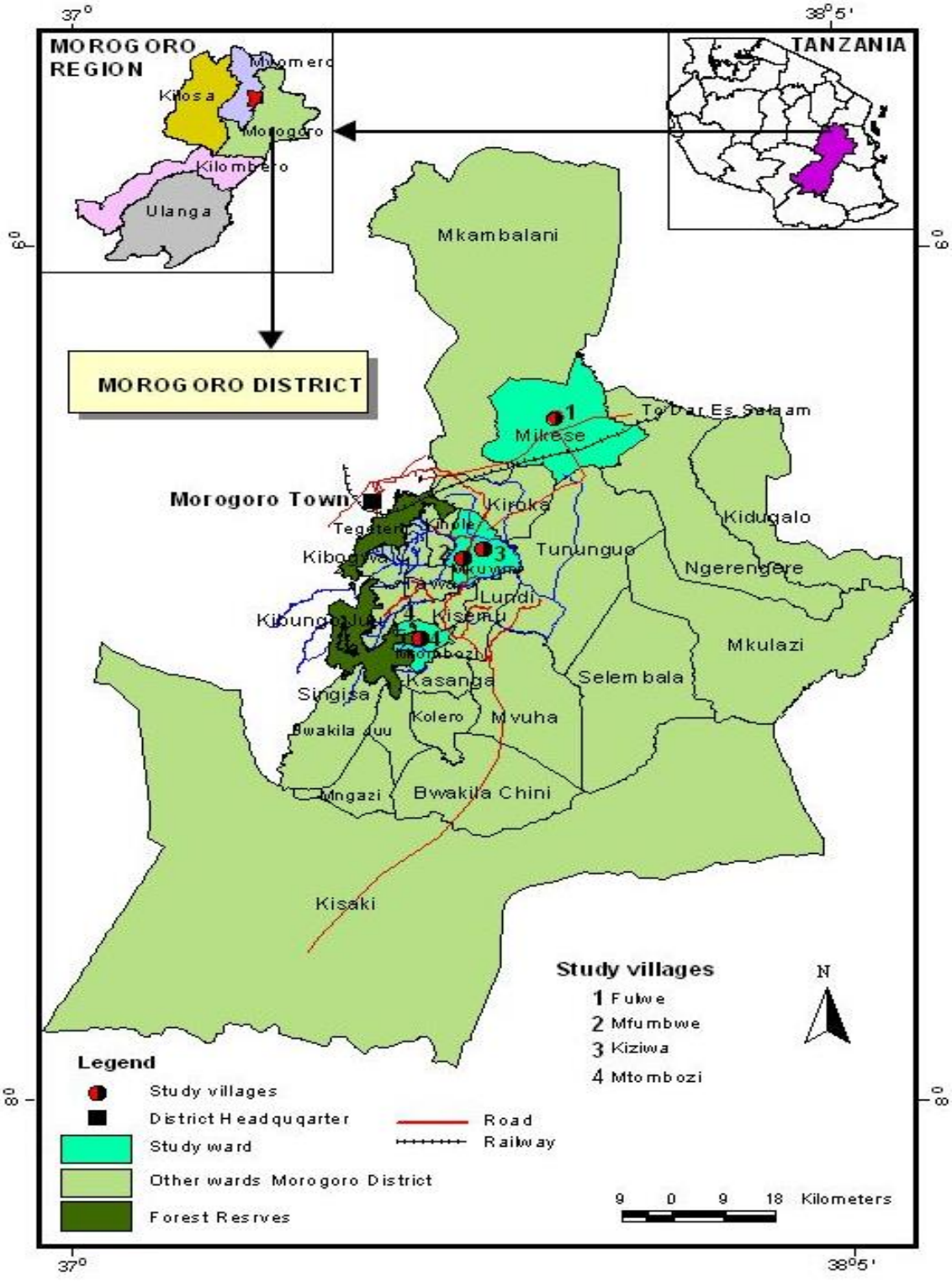

Figure 1: Map of Morogoro District showing the study villages

However, it is not one of the major livestock producing regions in the country. Only a limited number of farmers keep cattle, goats pigs and chicken. Morogoro District farmers are among the community members who are involved in Farmer Groups Investment Sub-projects (FGIS) under PADEP and need sustainable projects in order to alleviate their poverty. The district (Fig. 1) covers about 11 925 km^2, comprising population of 286 248 people of whom 140 824 are males and 145 424 females with a growth rate of 2.2 % (URT, 2013). The factors affecting sustainability of Farmer Groups Investment Sub-projects (FGIS) and their policy implications remain to be clarified by this study.

1.2 Problem Statement and Justification

Throughout modern history of development steady nurturing process has evolved, moving away from seeing communities as separate from the development process and instead seeing their capacity as primary catalysts for development (Gilchrist and Rouf, 2006). International donors have played important role in assisting Tanzania to implement community development projects (CDPs). The public sector as well as private sector, such as farmers' organisations in the country has also implemented innumerable donor-funded projects, particularly during the last decade. However, every time a project concludes, the concern on its effective implementation, corruption, mismanagement and sustainability are raised in the media. This is repeated by the same story for subsequent projects without drawing any lessons from the previous exercise (Koponen, 2001; Marcus, 2005; World Bank, 2011).

Sustainability of farmer group investment sub-project in development process requires consideration and analysis of variety of factors which needs commitment of all stakeholders. Despite the efforts made by PADEP through sensitisation meetings and involving leadership, the achievement of farmer groups investment sub-projects set targets

is still being challenged by low absorption rates, low justification rates and low completion rates which could affect sustainability of the sub-projects. The study is in line with the National Strategy for Growth and Reduction of Poverty (NSGRP/MKUKUTA) Cluster 1 Goal 2 which focuses on promoting sustainable and broad based growth (URT, 2010). The purpose of this study was therefore to assess sustainability of PADEP Farmer Groups Investment Sub-projects (FGIS) in Morogoro District, Tanzania. In order to take actions to improve sustainable group efforts, it was worthwhile to assess sustainability of PADEP Farmer Groups Investment Sub-projects in Morogoro District, Tanzania.

1.3 Objectives of the Study

1.3.1 Overall objective

To assess sustainability of farmer Groups Investment Sub-projects in Morogoro District.

1.3.2 Specific objectives

i. To examine selected farmer groups investment sub-projects sustainability initiative process.
ii. To assess the extent of stakeholders participation in different stages of selected farmer groups investment sub-projects.
iii. To determine social, economic and environmental factors related to sustainability of selected farmer groups investment sub-projects.

1.4 Research Questions

(i) What farmer groups investment sub projects sustainability initiative process was undertaken?
(ii) What is the extent of stakeholders' participation in different stages of selected farmer groups investment sub-projects?
(iii) What social, economic and environmental factors are related to sustainability of selected farmer groups investment sub-projects?

1.5 Operational Definitions of Terms

The terms that will be used frequently in the text are defined here to provide a common basis of conveying meaning. These include: rural development; community development; donor funded projects; sustainability of donor funded projects; farmer groups investment projects; community participation; community; community project; investment; project; sub-project and farmer group.

1.5.1 Rural development

Rural development is defined as a strategy designed to improve the economic and social life of a specific group of people, specifically the rural poor (World Bank, 1980). In this study, rural development is the process of improving the quality of life of all sub-project members through facilitation and implementation of PADEP farmer group investment sub-projects resources to raise income of the community members.

1.5.2 Sustainability of donor funded projects

Sustainability in project refers to the ability of the project to continue in operation to achieve its purpose for the longest time possible after the donor withdraws support (Martha, 2013). In this study, sustainability refers to the ability of PADEP farmer groups investment sub-projects to maintain their operation service and benefit by the farmer themselves after the donor technical, managerial and financial support has ended.

1.5.3 Community participation

Community participation is an active process where intended beneficiaries influence programme outcomes and gain personal growth. Participation in programmes would imply the involvement of a significant number of persons in situations or actions that enhance their well-being, for example, their income, security or self- esteem (Oakley, 1999). In this

study, community participation is considered as the way different groups of FGIS members' respondents were engaged in decision making and planning process in FGIS under PADEP implemented in the study area.

1.5.4 Donor

A donor is an individual, a group of people or an organisation that provides assistance aiming at generating economic growth and reducing poverty through finance investments and interventions in a community (Shirlanne, 2013). In this study, the term donor refers to financial institutions which were responsible in funding selected FGIS under PADEP in the study area.

1.5.5 Community

Community is a set of social relations based on shared values, a sense of mutual destiny, common bonds and obligations, and the primary ties to a local area and its biophysical environment (Rickson *et al*., 1995). In this study, community refers to FGIS members who organise themselves and decide to carry out selected sub-projects in the study area.

1.5.6 Community project

A community project is any community-based activity. This covers a wide variety of different areas within a community or a group of networking entities. Projects can cover almost anything, including the most obvious section of concern to any community, the welfare element, economic aspect and political (Ulaanbaatar, 2010). In this study, community projects refer to activities approved by PADEP and carried out by FGISC members in their sub-projects in the study area.

1.5.7 Investment

Mhlanga (2010) defines investment as a conscious act of an individual or any entity that involves deployment of money (cash) in securities or assets issued in a view to obtain the

target returns over a specific period of time. In this study, investment refers to a commitment of funds, power and time made by FGIS members in the study area to devote in agricultural activities (sub-projects) in the expectations of some positive rate of return.

1.5.8 Project

A project is a temporary endeavour undertaken to create a unique product, service or result (CEO, 2011). In this study, project described as all activities undertaken by FGIS members for the aim of improving agricultural productivity, which would result on increase in people's income.

1.5.9 Sub-project

Sub-project is an investment and related activity initiated to be undertaken by the beneficiaries (ADB, 2010). In this study, sub- projects are all small agricultural activities chosen by GFIS members in the study area to be done for the aim of increasing productivity hence improving their income and well-being.

1.5.10 Farmer group

A farmer group is a collection of farmers with a common objective or problem to solve, which is often associated with the production and marketing of agricultural products (ASARECA, 2009). In this study, farmer group is a group of community members engaged in sub-project activities working together for the purpose of improving agricultural productivity in the study area.

CHAPTER TWO

2.0 LITERATURE REVIEW

This Chapter reviewed literature from the findings of other studies in order to provide a theoretical framework which guided development of the study model on which analysis of data for the present study was based. It focuses on: Rural/community development; farmers organisations; participation in development projects; factors affecting sustainability of development projects; theoretical framework and conceptual framework.

2.1 Rural/Community Development

Rural development should be central to poverty reduction to most of rural residences where most of people in rural areas (37.6%) live below basic need poverty line in Tanzania (URT, 2007). Jones (1986) and Sumners (2011) observe that rural development involves the perception of rural people of possible and often new ways and means of developing their economies. This implies development of agriculture as a means to the end. Rural development also embraces an active concern for improvement of welfare and wellbeing of all rural inhabitants. According to Gilchrist and Rouf (2006), community development is firmly based on the needs and concerns of the community and their experiences. It is about promoting positive change in favour of those who benefit least from the economic development. However, it is not about concrete changes in quality of people's lives but also about how this is done. It should enable people to play a role in shaping their own lives and in shaping society in which they are a part. Gilchrist and Rouf conclude that community development recognises that the disadvantage is caused by a number of social, economic, cultural and political factors, and therefore any response must address a number of different issues in an integrated and coordinated way and must involve those who are experiencing the disadvantage.

Rural and community development can be attained through collective effort of local people who seek opportunities, take advantage of them, and use those opportunities to solve problems (Mto, 2010). Collective effort comes when people or communities have been capacitated to know their environment and problems facing them. Cooperatives are viewed as one of important vehicles for community development because they mobilise local resources into a critical mass and their structure allows them to be more community-oriented (Kimberly and Jamie 2005). Community development will be easier facilitated when cooperation and friendship are a basis for interactions. In some communities, the development process may have first address conflicts, destructive forms of competition, and indifference, before cooperation and development can occur (Mto, 2010). In Community/rural development power relation between people, government and business is very important; all stakeholders within and outside the environment are important and indigenous people should not be neglected.

2.2 Farmers Organisations

It has been noted (Pertev and King, 1998; Shoo, 2004; Penunia, 2011) in different studies that there are an upsurge of people forming cooperatives, organisations, associations, foundations and similar institutions to assist themselves in delivering social services by promoting grass-root economic development, prevent environmental degradation, protect civil rights and pursue other objectives which are traditionally addressed by the government. The “phenomenon” of this increase in civil society organisations is motivated by spontaneous grass root movements, through the actions of various public and private institutions and in certain cases they also emerge in response to a crisis situation. In most cases, an important objective pursued is that of "assisted self-reliance" or "participatory development" which stresses the need to “empower people through knowledge” to increase their capacity to cope with a changing environment and to improve their own

well-being. This has led to the strengthening of civil society by increasing the capacity to engage people at the grass-root level through variety of non-governmental organisations and farmers' organisations, both of which are playing an increasingly important role in the production of public goods at national, regional and global levels.

A study by Chamala and Shingi (1987) revealed that by gaining economic strength and independence, farmers' groups are in position to empower themselves and not being 'empowered' by some external agency. External agencies (governmental agencies, non-government organisations and development organisations) set "their own" farmers' organisations which are shaped in line with their ideas and ideologies. While some cooperation may be good and democratic, the setting of unsustainable parallel structures by external agencies is not a healthy development (Oakley, 1999). Farmers' voice cannot be obtained without farmers' organisations. To engage in any sensible dialogue with the rest of society, farmers need their representative organisations, the farmers organisations, structured from grassroots to the international level, as their legitimate voice. This is why farmers' movement gives a lot of importance to farmers' organisations, organisations by farmers and for farmers, as an important pillar of today's society. Consequently, organised farmer groups are promoted as useful avenues for increasing farmer productivity and for the implementation of food security and other development projects (Lenis, 2012).

2.3 Participation in Development Projects

Participation is crucial ingredient of development and development administration in all countries and occupies an institutional basis in the total process of developmental change. It is the way to improve traditional ways of making decisions, setting agendas, and devising policy (Rowe and Frewer, 2004). For analysing people's participation in development projects, Cohen and Uphoff (1980) have provided a comprehensive model

which incorporates three basic and fundamental dimensions of participation: what kind of participation takes place, who participates and how the process of participation takes place. The comprehensive model regarding people's participation addresses issues like whether participation is voluntary or directed, whether it is manipulative or whether people are really empowered or not. It also includes historical, natural and social factors that shape the nature and extent of participation. Contemporary development scholars have been advocating the inclusion of people's participation in development projects as they believe the acknowledged objectives of any project cannot be fully achieved unless people meaningfully participate in it (Mohammad, 2010).

Participation can operate in several levels based on the natural and extent of participation in the development projects or programmes. Arnstein (1971) came up with eight levels of participation arranged in a ladder form from manipulative, therapy, informing, consultative, placation, partnership, delegated power and citizen control. Manipulative and therapy implies non-participation, informing, consultative, and placation implies degree of tokenism while partnership, delegated power and citizen control implies degree of citizen power. In non-participation, the powerful authorities instruct and educate the participants. In the degree of tokenism, the powerless are being consulted and informed but the power holders do not act based on the view presented at the end. In the degree of power implies that citizens are not only able to negotiate with power holder but they are also able to obtain full decision making power (Komalawati, 2008). Active people's participation from project design, implementation to evaluation ensures the reflection of community priorities and needs in the activities of the project and motivates communities into maintaining and operating project activities after the completion of the project. It also increase capabilities at the level of the community and encourages cost sharing of project activities (Subash, 2008).

2.4 Factors Affecting Sustainability of Development Projects

The sustainability of project benefit is not an issue that should arise at the end of project cycle. Rather sustainability should begin from the preliminary stages of project designing, implementation, monitoring and evaluation. Project sustainability is dependent on the degree of self-reliance developed in target communities and on the social and political commitment in the development projects (Blewitt, 2008). Sustainability can be achieved primarily by capacity development on the clientele at individual, social, institutional and system levels. According to Howlett and Nagu (2001), for the sustainability of a project, there must be an increasing consensus at national and donor levels, that is involvement of all beneficiaries in the project design and the implementation is crucial. The most important thing is to empower those who have no power; the most vulnerable groups in the society, those generally targeted by the development programmes.

According to FAO (2010), sustainability can be enhanced if resources have been sufficiently invested to build the technical organisational and management capacity of key institutions so that the needed support can be provided. Furthermore in 2005 World Summit, it was noted that sustainability requires the reconciliation of environmental, social and economic demands which are the "three pillars" or factors of sustainability (FAO, 2010). Furthermore, the main factors affecting sustainability have been identified as partner government and donor policies, local participation and ownership, management and organisation, financial, awareness and training, technology, social, gender and culture, environment, and external political and economic factors. Most of these factors are aspects of good quality as well as being factors specifically affecting sustainability (USAID, 2000).

2.5 Theoretical Framework

This study is driven from adaptive management theory (Thomas et al, 2007). The theory integrates a social conception of science with a social conception of public decision-

making. Theory demands that decision-reaching be experimental and dynamic, typically working through “bottom-up” processes of negotiation. It is believed that local community decision reaching guarantees the inclusion of personal and community identities in a decision on natural management hence create sustainability.

2.6 Conceptual Framework

In the context of this study, the purpose of which was to assess sustainability of selected PADEP’s FGIS in Morogoro District, the conceptual framework shown in Fig. 2 has been developed. This conceptual framework was for analysing a large volume of data and was oriented towards establishing findings which fulfil the objectives of this study. It allows drawing implications on the extent to which donor-funded FGIS was sustained in order to take action to improve sustainable community efforts in the study area and beyond.

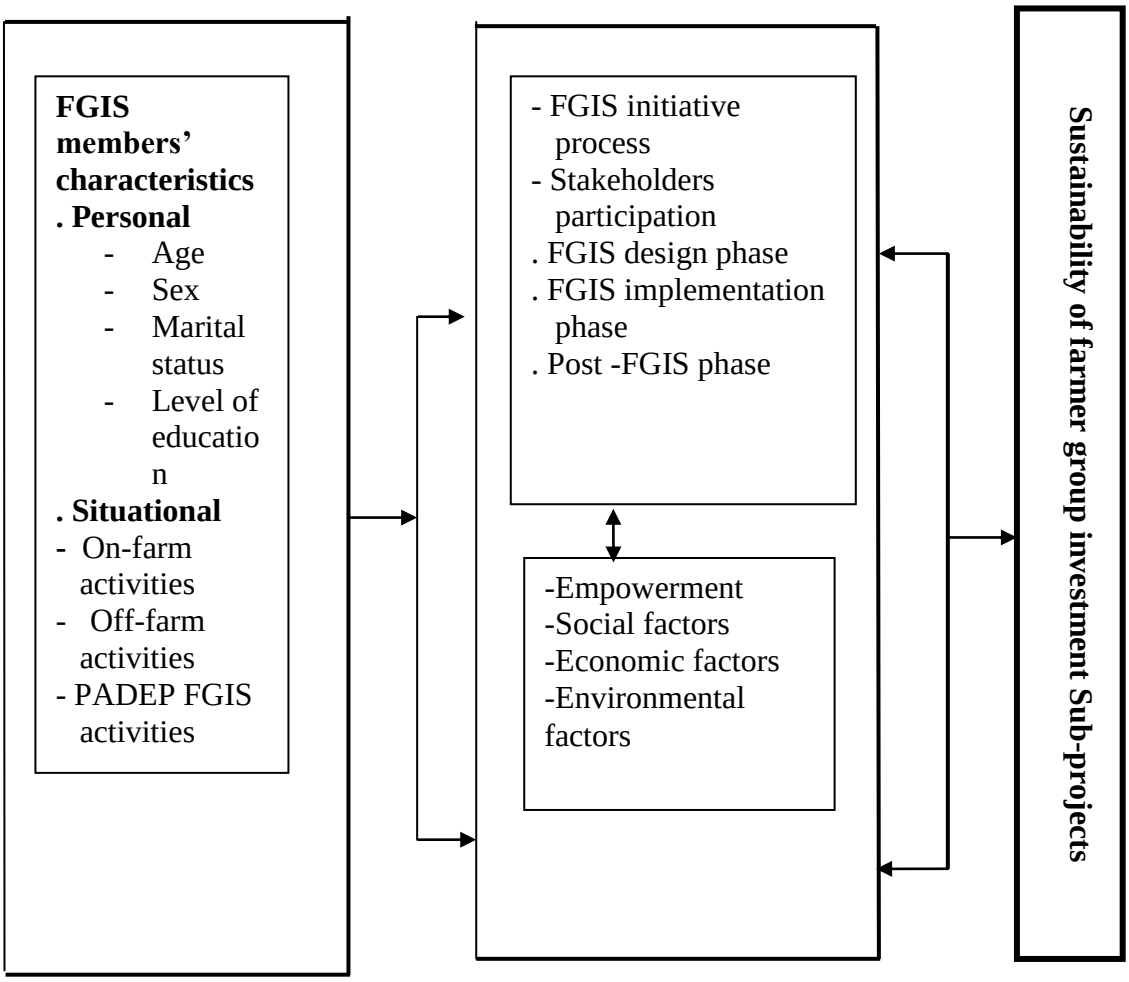

Figure 2: Conceptual Framework

CHAPTER THREE

3.0 METHODOLOGY

This study focuses on sustainability of farmer groups investment sub-projects in Morogoro District. This Chapter discusses the research methodology adopted under eight parts: (a) study area, (b) study design, (c) sampling procedures, (d) sample size, (e) data collection instruments, (f) data collection procedures, (g) data processing and analysis and (h) limitations of the study.

3.1 Study Area

This study was conducted in Morogoro District, Morogoro Region. The district was purposively selected from among eight pilot districts involved in PADEP, which was launched in August 2003/04 and phased out in 2007/08. There was also evidence of continued operations of farmer groups investment sub-projects (FGIS) in some initial project villages in the District (URT, 2010).

3.2 Study Design

Cross-sectional design in which data were collected in one-point at a time was adopted. The design is cheap, quick and effectively utilises limited resources in terms of funds, labour, transport and time. It is also very useful for descriptive purposes and the data collected are used to determine relationships between different variables focused in the field of study (Kothari, 2004).

3.3 Study Population and Sampling Procedures

The study population was all farmers involved in the existing Farmer Groups Investment Sub-projects (FGIS) in Morogoro District. A multi-stage sampling technique was adopted in this study (Kothari, 2004). The technique was employed under two main stages.

Stage 1: The first sampling stage involved purposive sampling of divisions, wards, and villages based on evidence of existing PADEP Farmer Groups Investment Sub-projects. There were 7 divisions, 29 wards and 146 villages during the time of data collection in Morogoro District. Each division had more than 2 wards and each ward had more than 2 villages. Thus three divisions were purposively identified, namely: Mikese, Mkuyuni and Matombo. In turn, one ward was purposively selected from each division, namely: Mikese; Mkuyuni and Mtombozi. The purposive sampling procedures were also used to select four villages from the selected wards, namely: Fulwe village from Mikese ward, Mfubwe and Kiziwa villages from Mkuyuni ward and Mtombozi village from Mtombozi ward. Finally, the same procedure was used to select one Farmer Group Investment Sub-project from each of the selected villages with a minimum of 20 group members, namely: Juhudi Group (JG), Mfano Group (MG), Twinuke Group (TG) and Upendo Group (UP).

Stage 2: The second sampling procedures involved sampling of study respondents. A sample of 80 group members (GM) from the four selected existing FGIS in each of the four selected villages, including 44 male group members (MGM) and 36 female group members (FGM) from the four groups in the selected villages (20 from each group). Simple random and stratified sampling techniques were used to get names of male and female group member respondents from collected registers of 659 farmer group members (377 Male 282 female) from the selected villages. Each of the selected village had one extension agent in FGIS who was involved in the study as a key informant. In addition, 10 other key informants were selected using snowball technique.

3.4 Sample Size

A sample size of 80 FGIS members and 14 key informants were selected and involved in the study. According to Maas and Joop (2005), a sample size of at least 30 respondents is

reasonably sufficient in social science research studies to ensure normal distribution of the sample mean. The distribution of all respondents involved in the study is shown in Table1.

Table 1: The distribution of all respondents (n=94) involved in the study

Type of respondent	Number		Total
	Male	Female	
FGIS Community Members	44	36	80
Key informant	9	5	14
Total	**53**	**41**	**94**

3.5 Data Collection Instruments

The instruments used for data collection were the interview schedule, researchers diary, and checklists.

i) Interview schedule: One type of interview schedule was used to collect primary data from FGIS group member respondents, namely: FGIS group members respondents interview schedule (Appendix 1).

ii) Checklist: It was used to collect primary data from key informants to supplement information gathered through interview schedules and researcher's diary (Appendix 2).

iii) Researcher's diary: This was used to collect secondary data from documentary sources, focus group discussions and researchers observations of FGIS activities.

3.6 Data Collection Procedures

Field work was conducted from December 2013 to January, 2014. The permit for data collection was obtained from Morogoro District Administrative Secretary (DAS) after getting the introductory letter from the Director of Research and Postgraduate Studies at Sokoine University of Agriculture (SUA). Data were collected by the researcher herself.

Primary data were collected from FGIS members respondents using interview schedule translated from English into Kiswahili. The schedule was pre-tested to FGIS group members not included in the study sample in order to ascertain validity and reliability of the instrument. Checklist was used to collect primary data from key informants. In addition, researcher's diary was used to collect primary data from focus group discussion (FGD) and secondary information from documentary sources. Researcher's observations on FGIS activities were also recorded.

3.7 Data Processing and Analysis

3.7.1 Data processing

Data from completed FGIS member respondents' interview schedule were coded for computer analysis. Each schedule had 50 variables. In addition, data from bulk researchers' diary and checklist were summarised manually to single sheets of paper. In summarising the data, great care was taken to ensure that it accurately reflected original meanings of the statements made.

3.7.2 Data analysis

Descriptive statistics as well as content analysis techniques were used to analyse and interpret data collected and processed based on the three study objectives. Data processed from FGIS member respondents were analysed using computer programme for Statistical Package for Social Sciences (SPSS). The methods of analysis involved descriptive statistics to measure project sustainability. Techniques of frequency counts, cross-tabulations, means and percentages were used. Furthermore, data processed from researcher's diary and checklist was also examined. Qualitative data were analysed using "content analysis" technique, which mainly involved transcription of recorded notebooks and then clustering information into sub-themes. Quantitative data were processed and

analysed to produce frequencies to facilitate assessment of sustainability of farmer groups investment sub-projects in the study villages.

3.8 Limitation of the Study

(a) Lack of data was another challenge faced during data collection. Farmer group member respondents rarely kept written records of their activities, their responses were based on personal memories. Therefore, it was difficult for some respondents to give answers to some of the questions. The researcher tried to probe in order to get exact data and information based on the study questions.

(b) Some SFGIS member respondents were reluctant to provide data due to past experiences on research studies, whereby farmers were given money in exchange for responding to interview questions. To overcome this problem, the researcher tried to persuade group members to understand the objective and importance of the study, which made them cooperate.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSIONS

This chapter presents the major results and discussion arising from the data analysis related to sustainability of farmer groups investment sub-projects in Morogoro District. These are discussed under four main sections: The first section dealt with farmer group investment sub-projects community members (FGISCMs) characteristics. The second section focused on FGISCMs respondents' opinions on farmer group investment sub-project sustainability initiative process. The third section discusses FGISCMs respondents' opinion on the extent of stakeholders' participation in different stages of selected farmer group investment sub-projects. Finally, the fourth section determined factors related to social, economic and environmental factors related to sustainability of selected FGIS. The findings from these sections were examined from the perspective of their implication for sustainability of FGIS community sub-projects in the study area.

4.1 Farmer Groups Investment Sub-project Community Members (FGISCMs)

Respondents Characteristics

The FGISCMs characteristics covered personal and situational characteristics in PADEP farmer groups investment sub- projects, it is organised in two main categories. The first category involved personal characteristics and the second category is based on situational characteristics. Personal characteristics comprised of sex, age, marital status and level of education while situational characteristics focused on: on-farm activities, off-farm activities, average monthly income, and involvement of FGISCMs respondents in FGIS activities.

4.1.1 FGISCMs respondents' personal characteristics

The personal characteristics of FGISCMs have important socio-economic implications on involvement in PADEP farmer groups investment sub-projects. The important FGISCMs personal characteristics examined in this study are: (a) sex, (b) age, (c) marital status, and (d) level of education. The examination of FGISCMs respondents revealed that of the 80 FGISCMs, 44 were male farmer group investment sub-project community members (MFGISCMs) and 36 were female farmer group investment sub-project community members (FFGISCMs). Further examination of FGISCMs respondents characteristics are organised under age, marital status and level of education as presented in Table 2.

Table 2: Percentage distribution of FGISCMs respondents (n=80) by personal characteristics

SFGMs Personal Characteristics	Number	Percent
Sex		
Male	44	55
Female	36	45
Age group		
18 -25	6	8
26-35	17	21
36-45	22	27
46-60	31	39
61-75	4	5
Marital status		
Single	10	13
Married	57	71
Widow/Widower	5	6
Divorce	8	10
Level of education		
Adult literacy	6	8
Primary	64	80
Secondary	10	13

(a) Age

The age distribution of FGISCMs respondents from the study area ranged from 18 to 75 years old as given in Table 2. The majority (56%) were below 46 years of age. This age group is considered as an active age group and thus can actively participate in project interventions. However, the results show that involvement of FGISCMs respondents with 46 years and above were a rich source of information on sustainability of FGIS in the study area.

(b) Marital status

The study result in Table 2 show that the majority (71%) of the respondents were married couples. Married couples are likely to be more productive than single person due to lack of mobility hence offers labour supply in FGISCMs and access to resources in sub-project investments. This implies that marital status did not significantly influence the study results.

(c) Level of education

According to URT (2005), education equips people to face the existing challenges of the world which is most likely to affect the participation in farmer groups investment sub-projects. The distribution of FGISCMs respondents' level of education is shown in Table 2. The results in Table 2 show that a high proportion (80%) of the FGISCMs respondents had primary education. However, the results in Table 2 suggest that formal education was an important criterion in involvement in FGIS.

4.1.2 FGISCMs respondents' situational characteristics

The situational characteristics dealt with were in four main categories. The first category involved factors related to on-farm activities. These include land ownership, crop and

livestock production. The second category involved off-farm activities in which FGISCMs respondents were engaged. The third dealt with average monthly incomes accrued from on-farm and off-farm activities. Finally the fourth category focused on FGISCMs involvement in farmer groups investment sub-projects.

a) On-farm activities

(i) Land ownership

The FGISCMs respondents were asked to indicate the size (acres) of farm they owned in their area and the size of farm they used to cultivate as shown in Table 3. The results in Table 3 indicate that the majority (59% and 61% MFGISCMs and FFGISCMs, respectively) of respondents owned and cultivated land sizes between 2 and 5 acres with an average farm size of 2.3. This suggests that the FGISCMs respondents' farm sizes were very representative of the general farm size situation in the study villages which is 3.0 acres (DALDO, 2012). This reflects what has been reported by Mary (2011) that the majority of farms in Tanzania vary from less than one to three acres, with an average farm size of 2.4 acres.

Table 3: Percentage distribution of FGISCMs respondents (n=80) by land ownership

Land ownership (acres)	**FGISCMs Respondents**			
	MFGISCMs (n=44)		**FFGSICMs (n=36)**	
	Number	**Percent**	**Number**	**Percent**
< 2	8	18	8	22
2 – 5	26	59	22	61
> 5	10	23	6	17

(i) Crop production

The FGISCMs respondents opinions on area cultivated types of crop grown and average crop yields are examined in this part in terms of cash and food crops and average crop

yields in kg per acre (kg/acre) in 2012/2013 season. The major crops grown in the study area and their average yields for MFGISCMs and FFGISCMs are given in Table 4. In general, results in Table 4 revealed that MFGISCMs and FFGISCMs respondents produced an average yield of 534 and 400 kg/acre, respectively. This implies that both MFGISCMs and FFGISCMS were concerned with crop production which could be used as food and generate income for fulfilling family basic needs, medical services and sending children to school, all of which require use of money.

Table 4: Average distribution FGISCMs respondents (n=80) crop production

Type of Crop	FGICMs **Respondents**	
	MFGICMs (n=44) **Average crop yields (kg/acre)**	**FFGICMs (n=36)** **Average crop yields (kg/acre)**
Food crop		
Maize	760	490
Paddy	380	420
Cash crop		
Sunflower	505	380
Simsim	490	310
Average	**534**	**400**

(ii) Livestock ownership

The numbers of livestock owned by FGISCMs respondents were expected to indicate their economic status. The FGISCMs respondents were therefore asked if they owned livestock and the findings are summarised in Table 5. The results in Table 5 indicate that the major types of livestock owned by the respondents in the study area were local chicken, where 61% and 42% of the MFGISCMs and FFGISCMs respondents, respectively, owned more than 10. However, the findings indicate that livestock was not an important economic activity in the study villages.

Table 5: Percentage distribution of respondents (n=80) by type of livestock owned

Type of livestock owned	Number of livestock owned	FGISCMs Respondents MFGISCMs (n=44)		FFGISCMs (n=36)	
		Number	Percent	Number	Percent
Chicken	0	0	0	0	0
	1-5	3	7	7	19
	6-10	10	23	12	33
	>10	27	61	15	42
Pig	0	35	80	33	92
	1-5	8	18	3	8
	6-10	1	2	-	-
	>10	-	-	-	-
Goat	0	37	84	36	100
	1-5	7	16	-	-
	6-10	-	-	-	-

(b) Off-farm activities

Off-farm activities are carried out in order to supplement income generation. The FGISCMs respondents' opinions were therefore sought on the extent to which they were engaged in off-farm activities, as shown in Table 6. The results in Table 6 indicate that 9.7% MFGISCMs and 9.0% FFGICMs respondents were involved in off-farm activities. The particular off-farm activities engaged with by respondents shown in Table 6 indicate that the major off-farm activities carried out mainly by respondents was small business which was carried out by 25% MFGISCMs and 19.4% FFGISCMs respondents. The findings suggest that engagement in off-farm activities was not an important economic undertaking for FGISCMs respondents in the study villages. However, there was a potential for off-farm employment for the community members in the study villages.

Table 6 : Percentage distribution of FGISCMs respondents (n=80) by type of off-farm activities engaged

Type of off-farm activity	FGICMs Respondents			
	MFGICMs (n=44)		FFGICMs (n=36)	
	No	%	No	%
Food vending	3	6.8	6	16.7
Tailoring	2	4.5	0	0.0
Small business	11	25.0	7	9.4
Carpentry	1	2.3	0	0.0
Average	**4.25**	**9.65**	**3.25**	**9.0**

(c) Monthly income generated from on-farm and off-farm activities

The FGISCMs respondents were asked to estimate average monthly income in TZS from their on-farm activities (crops and livestock) and off-farm activities in one year as given in Table 7. Results in Table 7 show that average monthly income generated from on farm activities (crops and livestock) and off-farm activities was 57 000TZS for MFGISCMs and 42 000TZS for FFGISCMs. Results from Table 7 further show that both MFGISCMs and FFGISCMs obtained more monthly income from off-farm activities compared to what they obtained from on-farm activities. Thus suggesting that there is a need for their increased engagement in on-farm activities.

(d) Involvement of FGISCMs respondents in FGIS activities

FGISCMs respondents were asked to state on how they were involved in identified FGIS which had been implemented in their villages. Percentage distribution of respondents' opinions in their involvement in FGIS in their villages is as shown in Table 8. The FGIS identified were: (i) Poultry keeping in Mtombozi (PKM); (ii) Poultry keeping in Kiziwa (PKK); (iii) Maize production in Mfumbwe (MPM) and (iv) Beekeeping in Fulwe (BKF), as shown in Table 8.

Table 7: Average income of FGISCMs respondents (n=80) from on-farm and off-farm activities per month

Type of activities	FGICMs Respondents	
	MFGICMs (n=44) TZS	FFGICMs (n=36) TZS
On farm		
-Crops	50 000	35 000
-Livestock	20 000	10 000
Off-farm	100 000	80 000
Average	**57 000**	**42 000**

(i) Poultry keeping in Mtombozi (PKM)

Poultry keeping in Mtombozi was introduced by the Government of Tanzania in collaboration with the World Bank. The project was introduced in 2006 and phased out in 2009. The sub-project was implemented in this area to alleviate poverty through increasing income of the small farmer group members. Result in Table 8 shows that 90% of the respondents agreed that the sub project had been implemented for more than 2 years without donor support and all FGISCMS respondents were involved. Only 40% of respondents agreed that there were evidence of achieving all project objectives while 50% of respondents stated that their sub-project benefit covered at least 50% of the population. Moreover, 95% of respondents stated that the sub-project was implemented by local institution at local authority level. In addition, 50% of respondents reported that the sub-project has at least 75% of the facilities in operational order. This implies that the sub-project had most of the requirements needed for sustainable community projects.

(ii) Poultry keeping in Kiziwa (PKK)

Poultry keeping in Kiziwa was introduced by the Government of Tanzania in collaboration with the World Bank. The sub-project was introduced in 2006 and phased out in 2009.

Table 8: FGISCMs respondents (n=80) opinions on their involvement in farmer groups investment sub-projects (FGIS)

Statement	Type of FGIS			
	PKM (n=20) **%**	**PKK** (n=20) **%**	**MPM** (n=20) %	**BKF** (n=20) %
• Implemented more than 2 yrs without donor support	90	95	80	85
• FGISCMs respondent involvement	100	100	100	100
• Evidence of achieving all project objectives	40	45	40	45
• Benefit cover at least 50% of the population	50	45	50	50
• Implemented by Local Institution at Local Authority level	95	90	80	95
• Have at least 75% of the facilities of in operational order	50	50	45	55

***PKM = Poultry keeping in Mtombozi** **MPM = Maize production in Mfubwe**

PKK = Poultry keeping in Kiziwa **BKF = Beekeeping in Fulwe**

The sub-project was implemented in this area to alleviate poverty through increasing income of the small farmer group members. Results in Table 8 show that 95% of respondents agreed that the sub-project had been implemented for more than 2 years without donor support and all FGISCMS respondents were involved. Only 45% of respondents agreed that there were evidence of achieving all project objectives while 45% of respondents stated that their sub-project benefits covered at least 50% of the population. Moreover, 90% of the respondents stated that the sub-project implemented by local institution at local authority level. In addition, 50% of respondents reported that sub-project has at least 75% of the facilities operation order. This implies that the sub-project had some of the requirements needed for sustainable community projects.

(iii) Maize Production in Mfumbwe (MPM)

Maize production sub-project was introduced by the Government of Tanzania in collaboration with the World Bank in Mfubwe village in 2005. It was introduced for the

aim of increasing farm productivity and improve community members living standards. Results in Table 8 show that 80% of respondents agreed that the sub-project had been implemented for more than 2yrs without donor support and 100% of respondents were involved in sub-project. 50% of respondents interviewed stated the sub-project benefit at least 50% of village population. It was further revealed by only 40% of respondent that there is evidence of achieving all project objectives while 80% of respondents reported that the sub-project had been implemented was by local institution at local authority level. Only 45% of respondents reported that the sub project has at least 75% of the facilities in operational order for the project sustainability. This finding implies that maize production sub- project had some requirements needed for project sustainability as in other sub-projects.

(iv) Beekeeping in Fulwe (BKF)

Beekeeping sub-project was introduced in 2004 in Fulwe village and funded by PADEP from 2004 to 2008 and implemented for more than 2 years without donor support in the area for the purpose of poverty alleviation as well as environmental conservation. Results in Table 8 indicate that 85% of respondents accepted that the sub-project had been implemented for more than 2 years without donor support and all group members were involved. Furthermore only 45% of respondents revealed that there were evidence of achieving all project objectives and 50% of respondents agreed that at least 50% of community members benefited with the farmer group investment sub project. In addition 90% of respondent admitted that beekeeping sub-project implemented by local institution at local authority level and 55% admitted that the sub project has at least 75% of the facilities in operational order for the project sustainability. The results in Table 8 suggest that the BKF sub-project, like other sub-projects had satisfactory requirements needed for a sustainable community project.

4.2 FGISCMs Respondents Opinions on Farmer Groups Investment Sub-project Sustainability Initiative Process

Considering that process of achieving sustainable community project initiatives can be discouraging at the beginning, FGISCMs respondents' opinions were sought by breaking sustainability initiative process on their FGIS sub-projects into 10 individual items, as shown in Table 9. The study results in Table 9 generally show that all sub-projects ranked between 70% to 80% on the process of achieving sustainable initiatives. It was noted from key informants that all the sub-projects were carried out to sustain community needs. More specifically, farmer groups investment sub project (FGIS) sustainability initiatives process is given in Table 9.

4.2.1 Local sustainability assessment conducted

It is very important to focus project sustainability from the designing phase. Respondents responses on local sustainability assessment as indicated in Table 9 shows that 70% and above of respondents stated that local sustainability of their sub-projects was conducted. This implies that baseline information on their proposed sub-projects helped to provide basis for measuring process later, and could help identify key goal of sustainable campaign.

4.2.2 Stakeholders concurrence on launching sustainable farmer groups investment sub-projects obtained

The majority (75% and above) of the FGISCMs from the four study villages stated that stakeholder concurrences on their respective sub-projects were reached. This implies that obtaining stakeholder concurrence in launching FGIS seem to build local support for former sustainable sub-projects involving people in the community and other stakeholders, including elected officials, government agencies and foundations. However, this implies

that the FGISCMs should take much autonomy, but no community can be self sufficient. Each community must interact with external bodies and often rely on outside assistance to meet its needs.

Table 9: Percentage distribution of FGISCMs respondents (n=80) on their sustainability initiatives process by sub -project

Statement	FGIS members respondents			
	MPM (n=20) %	**PKM (n=20) %**	**PKK (n=20) %**	**BKF (n=20) %**
• Local sustainability assessment conducted	95	88	80	70
• Stakeholder concurrence obtained	100	80	75	100
• Local sustainability champion designated	90	83	88	82
• A vision created	50	70	80	75
• Roadmap for reaching the vision developed	50	70	70	75
• Sustainability indicators developed	65	50	60	55
• Sustainability incorporated in local policy	35	55	75	60
• Source of help identified	25	45	60	45
• Project carried out	90	85	95	90
• Project progress checked	85	89	90	80
Average	**70**	**73**	**80**	**74**

*MPM = Maize production in Mfubwe PKK = Poultry keeping in Kiziwa

PKM = Poultry keeping in Mtombozi BKF = Beekeeping in Fulwe

4.2.3 Local sustainability champion designated

It was expected that to be successful, FGISCMs needed to appoint at least an individual to become a champion and conscience for sustainable development. Results in Table 9 show that 82% and above of the interviewed respondents from the study sub-projects agreed that local sustainability champion was designated to guide their sub-projects. The slight difference in scores among the study sub-projects indicate the extent to which local person

was sanctioned by local elected leaders and FGISCMs respondents to ascertain sustainability of their sub-projects.

4.2.4 Sub-project vision created

Creation of a specific and idealistic, but achievable vision is crucial for sustainability of any project. Results in Table 9 show that 50% to 80% of the FGISCMs from poultry keeping in Mtombozi FGIS and 80% from maize production in Mfubwe FGIS stated that their entire communities were engaged in visioning exercise, defining where their communities would like to be in a specified period from where they were. This implies that FGISCMs were required to compare existing with what is desired in future in order to establish baselines.

4.2.5 Roadmap for reaching the vision developed

Having established FGISCMs vision on a specified sub-project(s), it was expected that a roadmap for reaching the vision is developed. Results in Table 9 indicate that 50% to 75% of the respondents accepted that roadmap for reaching the vision was developed. This suggests that good number of FGISCMS respondents were aware of the strategies to be done to achieve their vision. This implies that they were able to identify what steps needed to be taken in order to achieve their vision and assign who will have to do what.

4.2.6 Sustainability indicators developed

After establishing FGISCMs vision and roadmap, identification of sustainability indicators that would be used to measure progress was expected to be developed. Results in Table 9 reveal that 50% and above of respondents were aware of the development of sustainability indicators allowed FGISCMs to see where the problem were and helped to show the way to fix the problems.

4.2.7 Sustainability incorporated into local policy

In order to have a sustainable project, local policy barriers have to be removed and policy incentives created. Results in Table 9 show that only 35% of respondent from MPM compared to 55% and above from PKM, PKK, and BKF stated that their sub-projects sustainability was incorporated into local policies. This suggests that most of the respondents in Maize production in Mfubwe GISCMs were not aware that a thorough audit of local policies to determine what stand in the way of progress was done.

4.2.8 Sources of help identified

It was assumed that FGISCMs would identify external agency to assist in implementing their sustainability roadmap. Results in Table 9 show that only 25% to 45% of FGISCMs respondents were aware that such external agencies were identified in their sub-projects. This implies that while external agency in a particular project is expected to become a facilitator, empowering communities through development of local capacities to the point at which community members graduate and become independent of the agency, the FGISCMs respondents were not aware of identification of their sources of help for their sub-projects.

4.2.9 Project carried out

In order for the project to be sustainable, it requires that more difficult goals and projects are taken as a public support and confidence builds. Results in Table 9 show that 85% to 90% of the SFGISCMs were satisfied with the way their sub-projects were carried out. This implies that they started with simple activities to begin implementing their sustainable sub-projects and the public was involved in them.

4.2.10 Progress checked

It was assumed that using sustainability indicators developed FGISCMs would evaluate their sub-projects regularly and make adjustments as necessary. Results in Table 9 show

that 80% to 90% of the respondents were aware that their sub-projects progress was checked in all the study villages. This suggests that proper sub-project indicators were developed and helped the FGISCMs respondents to monitor and assess their sub-projects on regular basis and make relevant adjustments.

In general, on the basis of FGISCMs respondents and key informants, this section can be concluded that primary goal of sustainable farmer group investment sub-project in the study area was to sustain their basic needs. This indicates that a sustainable community sub-project needs to be developed by people who make up the community.

4.3 FGISCMs Respondents Opinions on the Extent of Stakeholders Participation in Different Stages of Selected Farmer Groups Investment Sub-projects

The study found that stakeholders participated in selected FGIS in three phases, which include design phase, implementation phase and post project phase. In design phase of FGIS, there were clear explanations of sub-project goals and objectives. In this phase the key stakeholders are at national, donors and community levels. The next was implementation phase, which was a period in which the key stakeholders are regional agency, the donor, the private sector, the project management staff and community. Finally in the post project phase the sustainability is measured with the key stakeholders being national agency, regional agency, the private sector and community. Donors are removed from the picture on this sub-project phase. Post project assessments of sustainability take place after the project is completed to allow local institutions to become self-sufficient.

It was observed in all sub-projects that the critical period of evaluating sustainability is the removal of donor from financial, operation and management support roles. Farmer groups

investment sub-project member respondents' opinions on stakeholders' participation in different phases of sub-project cycle are indicated in Table 10. Overall, result in Table 10 show that all sub-projects indicated good levels (71% and above) of stakeholders participation in different phases of sub-projects studied, which implies that sub-project benefits were continuing at acceptable levels. The findings in Table 10 are discussed under the following parts:

4.3.1 Commitment of national agency to micro-project goals

Result in Table 10 indicate that only 35% to 45% of the farmer groups investment sub-projects member respondents were aware of the commitment of national agency. These findings are surprising since FGIS is one of the community Agricultural Development Sub-project components under PADEP which was prepared by Tanzania Government with assistance from the World Bank. The aim of FGIS is to empower farmer groups to make decisions to improve their economic well being and act on them. This implies that there is still a need for creation of community awareness on commitment of the national agency to their sub-projects goal and sustainability.

4.3.2 Availability of national policy statement that defines responsibilities of the government, community and the private sector for providing supplies

Results in Table 10 indicate that 45% of respondents from MPM and PKM sub-projects and the majority from two sub-projects (55% from PKK and 70% from BKF) were aware. However, it was clarified by key informant respondent that there were no clear policy statements outlining the role of the government, community and private sector management for providing supplies for FGIS. This implies that there is a need to refine the national policy statement which defines responsibilities of government, community and the private sector for providing supplies for sub-project sustainability.

Table 10: Percentage distribution of FGISCMs respondents (n=80) opinions by the extent of stakeholders' participation in different phases of selected farmer group investment sub-projects

Statements	Type of the Farmer Group			
	MPM (n=20) %	PKM (n=20) %	PKK (n=20) %	BKF (n=20) %
• Commitment of national agency to project goals	40	45	40	35
• Availability of national policy statement which defines responsibilities of the government, community and private sector for providing supplies	45	45	55	70
• FGIS committee's confident in managing micro-project activities	75	75	70	55
• Women involvement in Sub-project committees	75	85	80	75
• Community involvement in all aspects of sub-project cycle	60	65	65	55
• Participation of FGIS committees in management and financial decisions	60	75	45	65
• Management of FGIS within existing institutional structure	85	65	70	90
Average	**71**	**71**	**75**	**70**

4.3.3 Community sub-project committees' competence in managing farmer groups investment sub-project activities

Results in Table 9 show that 55% of the FGISCMs respondents from BKF and 75% and above from the other three study FGIS stated that the FGIS had community management committees which were competent in managing such project activities. This implies that the FGISCMs committees were capable of managing the FGISs.

4.3.4 Women involvement in sub-project committees

Results in Table 10 indicate that the majority of respondents (75% and above) from all the study sub-projects agreed that more women were serving in sub-project committees and

participating in project activities than before the sub- projects began in the study villages. This might have been due to nature of the sub-projects or large number of males are absent from the farmer groups. Thus implying organised groups had a primary responsibility for using participatory approaches in implementing small-scale investment sub-projects without gender discrimination.

4.3.5 Community involvement in all aspects of sub-project cycle

Result in Table 10 indicate that 55% and above of the FGISCMs respondents from the study villages were involved in all aspects of sub-projects cycle. This suggests that every community member should be empowered to undertake sub-project activities with minimum outside assistance to meet the required needs.

4.3.6 Participation of project committees in management and financial decisions

It was expected that management of sub-project and financial decision would be done by community members themselves. Result in Table 10 indicate that in PKK FGIS was below 50% (45%) of the FGISCMs respondents compared to 60% and above of the respondents from the other three study sub-projects who were aware of participation of their sub-project committees in management and financial decision. These finding generally imply that the sub-project committees were not given enough power on management and financial issues which could affect their FGISs sustainability in post-project phase.

4.3.7 Management of sub-projects within institutional structure

Result in Table 10 show that 80% and above of FGISCMs respondents from all the study villages agreed that their sub-projects were managed within existing institutional structures to facilitate continuation of the sub-project activities in their post-sub-project

phase. Thus implying that all the study sub-projects were managed within existing institutional structures which could enhance their sub-project ability to function and incorporate institutional gains made during the sub-projects within appropriate government agencies.

In general, the study suggests that stakeholder participation can be expected to improve the chances of aid being effective because it involves a wide range of interested parties, the prospects of appropriate project design and commitments in achieving objectives is likely to be maximised. Also stakeholder participation improve the chances of project being sustainable because people are most likely to be committed to participate in project activities after end of external aid. This suggests that every community should be empowered to undertake its project activities with minimum outside assistance to meet its needs.

4.4 FGISCMs Respondents Opinions on Social, Economic and Environmental Factors Related to Sustainability of Selected FGIS

Judging whether a project and its benefits are sustainable is important as a means of determining project success. However, understanding what factors influence sustainability is even more important for designing other projects in the future. Therefore, in order to achieve an overall picture of community performance to sustainable FGIS, FGISCMs respondents' opinions were solicited on statements focusing on various factors related to sustainability of their sub-projects, as summarised in Table 11. Results in Table 11 generally indicate the extent to which respondents were aware of different factors related to sustainability of the FGIS, ranging from 50% to 72% in all sub-projects. This implies that it is important for the community itself to be involved in the sub-projects. The summarised results given in Table 11 are further discussed below.

Table 11: Percentage distribution of FGISCMs respondents' (n=80) opinions on factors related to sustainability of selected FGIS

Statement	Type of the Farmer Group			
	MPM (n=20) %	PKM (n=20) %	PKK (n=20) %	BKF (n=20) %
• Users satisfied with services provided and content to see no change	30	55	55	40
• Availability of trained professionals to maintain and repair the facilities	90	85	70	80
• Supplies available and system of their distribution	50	60	70	60
• Evidence of positive behaviour related to hygiene	100	95	90	100
• Communities receive information about the project through media or extension agents	95	90	75	90
• Communities have adequate communication channels with government agencies and private sector to express community needs	50	50	70	55
• The sub-project roles clearly defined and understood by all responsible parties	90	85	95	90
• Responsible parties have resource to cover recurrent sub-project costs	45	40	45	45
• Ownership of sub-project facilities clearly defined	100	85	95	100
• Evidence flexibility in adapting to the problems related to sustainability during course of implementation	55	45	60	70
Average	**50**	**71**	**68**	**72**

4.4.1 Users satisfied with services provided and content to see no changes

Results in Table 11 show that 55% of farmer of FGISCMs form both PKM and PKK sub-projects compared to 30% and 40% from MPM and BKF sub-projects expressed satisfaction with their sub-projects. This suggests that the service provided to the FGISCMs respondents were not good and useful to them. This might be due to poor utilisation of self help approaches which require community empowerment in such sub-projects during the project implementation phase.

4.4.2 Availability of trained professionals to maintain and repair the facilities

Results in Table 11 show that the majority (70 % and above) of respondents from the study sub-projects accepted that there were training professionals available to maintain and repair their FGIS facilities. This implies that most FGISCMs were sufficiently trained to perform minor maintenance and repairs themselves to sustain their FGIS.

4.4.3 Availability of supplies and system of their distribution

Results Table 11 show that 50% to 70% of the FGISCMs respondents in the study sub-projects acknowledged that supplies were available and system of their distribution was good. This implies that there were no difficulties for the respondents to get basic supplies related to FGIS requirements. However, it was suggested by key informants that supplies and system of their distribution should either be located conveniently to the users and should be responsibility of the private sector.

4.4.4 Evidence of positive behaviours related to hygiene

Results in Table 11 show that the majority (90 % and above) of community FGISCMs respondents from all the study sub-projects stated that there was evidence of positive behaviours related to hygiene. This implies that respondents followed proper hygiene education which motivates people to adopt habits which avoid unhealthy practices and ensure that facilities are used in the most effective manner.

4.4.5 Communities receive information through the media or community development agents

Results in Table 11 indicate that the majority (75% and above) of FGISCMs respondents from the study sub-projects confirmed that they received information about their FGIS

through the media and extension agents. This implies that the media and extension agents were very important in disseminating FGIS information.

4.4.6 Communities have adequate communication channels with government agencies and private sector to express community needs

Results in Table 11 show FGISCMs response related to having adequate communication channel with government agencies ranging from 50% in MPM sub-project to 70% in PKK. This suggests that there was a satisfactory communication between government agencies, private sector and communities. However, it was noted that communities use former administrative channels through appointed or elected leaders at all levels to express their community needs.

4.4.7 The sub-project roles clearly defined and understood by all responsible parties

The results in Table 11 show that 85% and above of FGISCMs respondents confirmed that their sub-projects roles were clearly defined and understood by all responsible parties. This implies that all responsible parties participated in FGIS based on their defined roles which could lead to sub-projects sustainability.

4.4.8 The responsible parties have resources to cover recurrent sub-project costs

Results in Table 11 indicate few (40% to 45%) of FGISCMs respondents from all the sub-project stated that they had resources to cover current costs. This implies that recurrent sub-project costs were required to improve the ownership and sustainability of FGIS.

4.4.9 Ownership of sub-project facilities clearly defined

Results in Table 11 indicate that 85% and above of FGISCMs respondents from the study sub-projects stated that the ownership of their sub-projects facilities was clearly defined.

Considering that sustainability is a willingness of the people to look after what they have worked for, these findings imply that community ownership increased chances of FGIS sustainability.

4.4.10 Evidence of flexibility in adapting to the problems related to sustainability during course of implementation

Results in Table 10 indicate that the majority (55% to 70%) of the FGISCMs respondents from MPM, PKK, BKF and 45% PKM stated that there was evidence of flexibility in adapting to the problems related to sustainability during course of implementation. This implies that the majority of respondents from PKM respondents were not aware if flexible plans were developed, which would negatively affect their FGISs sustainability.

In general, on the basis of FGISCMS respondents and key informants, this section can be concluded that sustainability requires continuous analysis of flexibility to adopt new approaches which requires long term commitment on part of all stakeholders. Thus, the critical factor in promoting sustainability is characterising and harnessing the power of local leadership and community investment by building on existing assets as an essential component of any plan to enhance success and build sustainable social, economic and environmental future.

4.5 Summary of the Findings

The overall objective of this study was to assess sustainability of farmer groups investment sub-projects in Morogoro District of the Morogoro Region, Tanzania. The study identified factors affecting sustainability of farmer group investment sub-projects initiative process in the study area as follows: local sustainability assessments conducted; stakeholders concurrence on launching sustainable sub-projects obtained; local

sustainability champion designated; sub-projects vision created; roadmap for reaching the vision developed; sustainability indicators developed; sustainability incorporated into local policy; sources of help identified; sub-projects carried out and sub-projects progress checked. The extent of stakeholders participation in different stages of selected sub-project was found to be based on: commitment of national policy to sub-projects goals; availability of national policy statement which defines responsibilities of the government, community and private sector for providing supplies; FGIS committees competence in managing sub-project activities; women involvement in sub-project committees; participation of FGIS in management and financial decisions and management of FGIS within existing institutional structure.

Furthermore, social, economic and environment factors related to sustainability of farmer groups investment sub-projects identified were: users satisfied with services provided and content to see no changes; availability of trained professionals to maintain and repair the facilities; availability of supplies and system of their distribution; evidence of positive behaviour related to hygiene; communities receive information through the media or community development agents; communities have adequate communication channels with government agencies and private sector to express community needs; sub-project roles clearly defined and understood by all responsible parties; responsible parties have resources to cover the current sub-project costs; ownership of sub-project facilities clearly defined and evidence of flexibility in adapting to problems related to sustainability during course of implementation.

CHAPTER FIVE

5.0 CONCLUSIONS AND RECOMMANDATIONS

5.1 Conclusions

(i) The primary goal of sustainable farmer group investment sub-projects in the study area was to enable farmer group members to sustain their basic needs.

(ii) Stakeholders' participation in farmer group investment sub-projects is expected to improve the prospects of appropriate sub-projects design and commitments in achieving objectives is likely to be maximised.

(iii) Sustainability requires continued analysis to adopt new approaches which requires long-term commitments on the part of all stakeholders.

5.2 Recommendations

(i) Sustainable farmer group investment sub-projects need to be developed mainly by people who make up the groups.

(ii) Every farmer group should be empowered by development practitioners (such as Government, Donors and NGOs) to undertake its sub-project activities with minimum outside assistance to meet its needs.

(iii) The critical factor in promoting sustainability is characterising and harnessing the power of local leadership and community investment by building on existing assets as an essential component of any plan to enhance success and build sustainable social, economic and environmental future.

5.3 Suggestion for Further Research

(a) To undertake a case study on interaction among stakeholders in the study area. The purpose of this case study would be to elicit more reliable clues that would contribute to evidence based policy for sustainability of farmer group investment sub-projects (FGIS).

(b) To undertake case studies on FGIS in other parts of the country in order to enable generalisation of observations. The major purpose of the case studies would be to develop, enhance and understand sustainability of FGIS experiences, potentials and opportunities.

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APPENDICES

Appendix 1: Small farmer group members' organisations

QUESTIONNAIRE

- **Confidential**
- **Questionnaire**: Personal interviews
- **Respondent:** Small farmer group members
- **Study topic:** Sustainability of Donor-Funded Community Projects in Tanzania: A Case of PADEP Farmer Group Investment Sub-projects (FGIS) in Morogoro District.
- **Location**:

  Region……District…….Division……Ward……..Village…….
- **Name of selected FGIS**:……(*Criteria:* If the FGIS continue three years after donors support; evidence of achievement of all FGIS objectives; implemented by local institutions at local authority level; benefit at least 50 percent of the population; and at least 75 percent of FGIS facilities are available and operational.
- **Respondent:** No……..Date…….

1.0 Small farmer group members characteristics

1.1 Personal characteristics

1.1.1 Age…….. (Years)

1.1.2 Sex…… (Male/Female)

1.1.3 Marital status: Single/Married/Widowed/Divorced.....

1.1.4 Level of education (Final level obtained)…….

1.2 Situational characteristics

1.2.1 Does your household own any farm land? ..... **YES/NO**. If **YES,** how many acres……..and how much is used for crop farming activities……(acres).

1.2.2 If YES in 1.2.1 above, indicate crops grown in 2012/2013, as follows:

Type of crop zao	Area (acres)hekari	Average Yield (kg)mapato kwa wastani (kg)	Purpose (Cash/Food) Chakula/biashara	Income (TShs) mapatoTshs

1.2.3 Do you own livestock? **YES/NO**……If **YES**, indicate type of livestock you own and average

Monthly income in 2012/2013, as follows:

Type of livestock	**Number**	**Income (TShs)**

1.2.4 Do you engage in any off-farm activities? ..... **YES/NO**. If **YES**, indicate the type of off-farm activities you are engaged and average monthly income in 2012/2013, as follows:

Type of off-farm activity	Income (TShs)

1.2.5 Are you a member of …… (*Name of identified FGIS*) **YES/NO**. IF YES, are involved in ……...(*Name of identified FGIS)* farmer group investment sub-project which has been implemented in this village since……(years). If **YES**, when were you involved……..(*year*) and for how many years has the FGIS been implemented by the community without donor support?.....(*years*).

1.2.6 Does the FGIS mentioned in Q1.2.5 above benefit at least 50 percent of the village population?.....**YES/NO**. Is there evidence of achievement of all project objectives?.....**YES/NO**. Is it implemented by local institutions at local authority level?.....**YES/NO**? And does it have at least 75 percent of the facilities in operational order?.....**YES/NO.**

1.2.7 What is your role in investment FGIS.....?

2.0 Farmer group investment sub-projects (FGIS) sustainability initiative process

Statement	**Very satisfied**	**Reasonably satisfied**	**Slightly satisfied**	**Not satisfied**
- Local sustainability assessment conducted				
- Stakeholders concurrence obtained				
- Local sustainability champion designated				
- A vision created				
- Roadmap for reaching the vision developed				
- Sustainability indicators developed				
- Sustainability incorporated into local policy				
- Sources of help identified				
- The project carried out				
- Progress checked				

3.0 Stakeholders participation in different stages of selected FGIS

Statement	**Great extent**	**Limited extent**	**Never**
- Do national agency actions manifest a long term commitment to project goals			
- Is there a national policy statement that clearly defines the respective responsibilities of the government, the community, and the private sector; arrangement for providing supplies			
- Are FGIS committees or key individuals confident of managing the project facilities and related activities			
- Are more women serving on FGIS committees and participating in activities than before the project began			
- Were communities given a voice and vote in all aspects of the project cycle			
- Do project committees participate in project management and financial decisions			
- Was the FGIS managed within the existing institutional structure to facilitate continuation of activities after it ended as opposed to creating a special project organization?			

4.0 Social, economic and environmental factors related to sustainability of selected FGIS

Statement	**YES**	**NO**	**REASONS**
- Are users satisfied with services provided and content to see no changes?			
- Are trained professionals available to maintain and repair the facilities			
- Are supplies available and system of their distribution			
- Is there evidence of positive behaviour related to hygiene			
- Does communities receive information about the project through media or extension agents			
- Do communities have adequate communication channels with government agencies and private sector to express community needs?			
- Are sub-projects roles clearly defined and understood by all parties responsible for the project			
- Does the responsible parties have resources to cover recurrent sub-project costs			
- Is the ownership of sub-project facilities clearly defined			
- Is there evidence flexibility in adapting to the problems related to sustainability during course of implementation			

THANK YOU FOR THE COOPERATION

Appendix 2: Key informant checklist

- **Confidential**
- **Questionnaire**: Directed discussions
- **Respondent:** Key informants
- **Study topic:** Sustainability of Donor-Funded Community Projects in Tanzania: A Case of PADEP Farmer Group Investment Sub-projects (FGIS) in Morogoro District.
- **Location**:

  HQs……Region……District….Division……Ward……..Village…….
- **Name of selected FGIS**:……
- **Respondent:** No……..Date…….

1.0 Farmer group investment sub-projects (FGIS) sustainability initiative process

Statement	**Yes**	**No**
- Local sustainability assessment conducted		
- Stakeholders concurrence obtained		
- Local sustainability champion designated		
- A vision created		
- Roadmap for reaching the vision developed		
- Sustainability indicators developed		
- Sustainability incorporated into local policy		
- Sources of help identified		
- The project carried out		
- Progress checked		

2.0 Stakeholders participation in different stages of selected FGIS

Statement	**Yes**	**No**
- Do national agency actions manifest a long term commitment to project goals		
- Is there a national policy statement that clearly defines the respective responsibilities of the government, the community, and the private sector; arrangement for providing supplies		
- Are FGIS committees or key individuals confident of managing the project facilities and related activities		
- Are more women serving on FGIS committees and participating in activities than before the project began		
- Were communities given a voice and vote in all aspects of the project cycle		
- Do project committees participate in project management and financial decisions		
- Was the FGIS managed within the existing institutional structure to facilitate continuation of activities after it ended as opposed to creating a special project organization?		

3.0 Social, economic and environmental factors related to sustainability of selected FGIS

Statement	**YES**	**N0**
- Are users satisfied with serviced provided and content to see no changes?		
- Are trained professionals available to maintain and repair the facilities		
- Are supplies available and system of their distribution		
- Is there evidence of positive behaviour related to hygiene		
- Does communities receive information about the project through media or extension agents		
- Do communities have adequate communication channels with government agencies and private sector to express community needs?		
- Are sub-projects roles clearly defined and understood by all parties responsible for the project		
- Does the responsible parties have resources to cover recurrent sub-project costs		
- Is the ownership of sub-project facilities clearly defined		
- Is there evidence flexibility in adapting to the problems related to sustainability during course of implementation		

THANK YOU FOR THE COOPERATION