

**STAKEHOLDER MANAGEMENT IN THE AGRICULTURAL TECHNOLOGY
AND INFORMATION RESPONSE INITIATIVE (ATIRI) IN DISSEMINATION
OF AGRICULTURAL TECHNOLOGIES TO SMALL SCALE FARMERS**

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DECLARATION

This project is my own original work and has not been presented for examination in any other university.

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The management project paper has been submitted for examination with my approval as the university supervisor.

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DEDICATION

To my Daughter Adeline Karen Njoki

To achieve your dream you need a positive attitude as the driving force.

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TABLE OF CONTENTS

	PAGE
DECLARATION	ii
DEDICATION.....	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES.....	vii
LIST OF FIGURES.....	viii
ABBREVIATIONS AND ACCRONYMS.....	ix
ABSTRACT	x
CHAPTER ONE: INTRODUCTION	1
1.0 Background.....	1
1.1 Concept of Stakeholder Management.....	2
1.1.1 Strategy Implementation.....	5
1.1.2 Politics in Stakeholder Management.....	8
1.1.3 Dissemination of Agricultural Technologies.....	10
1.1.4 The ATRI Approach to Dissemination.....	14
1.2 Statement of the Problem.....	18
1.3 Objectives of the Study	19
1.4 Significance of the Study.....	20
CHAPTER TWO: LITERATURE REVIEW.....	22
2.0 Introduction.....	22
2.1 Stakeholder Management Concept.....	22
2.2 Stakeholder Management Issues.....	24
2.3 An Overview of Agriculture and Technology Dissemination.....	33
CHAPTER THREE: RESEARCH METHODOLOGY.....	35
3.0 Introduction.....	35
3.1 Research Design.....	35
3.1.1 Population.....	36
3.1.2 Sampling.....	36
3.2 Data Collection Methods.....	37

3.3	Data Analysis	37
CHAPTER FOUR: RESULTS AND DISCUSSION		39
4.0	Introduction	39
4.1	Research Profiles	40
4.2	Results of the Study by Objectives	42
4.2.1	Objective 1: Stakeholder Management Practices In ATIRI	42
4.2.2	Objective 2: Perceptions of Stakeholders about ATIRI	54
4.3	Limitations of the Study	62
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS		64
5.0	Introduction	64
5.1	Summary and Conclusions	64
5.2	Recommendations	66
REFERENCES		68
ANNEX I: Questionnaire		74
ANNEX II: List of CBOs		78

LIST OF TABLES

Table1. The power and interest matrix model	28
Table2. Source of power model.....	30
Table3: Period Coordinators have been involved in ATIRI	41
Table4: Duration CBOs have been involved in ATIRI.....	42
Table 5: Key stakeholders in ATIRI.....	44
Table 6: Stakeholders contributions in ATIRI.....	45
Table 7: Sources of information about ATIRI	46
Table 8: Stakeholder expectations in ATIRI.....	54
Table 9: Rating of Stakeholder expectations	55
Table 10: Problems experienced during the implementation of ATIRI.....	61

LIST OF FIGURES

Figure 1: ATIRI model.....	17
Figure 2: Main methods of communication in ATIRI	48
Figure 3: KARI top management support of ATIRI activities	49
Figure 4: Finance management challenges	51
Figure 5 Rating of Coordinators on the marketing of technologies by KARI.....	53
Figure 6: Rating Responsiveness of proposals.....	57
Figure 7: Assessment of Conflict of objectives	58

ABBREVIATIONS AND ACCRONYMS

KARI	Kenya Agricultural Research Institute
GOK	Government of Kenya
CBOs	Community Based Organizations
NGOs	Non-Governmental Organizations
ADC	Agricultural Development Corporation
AFC	Agricultural Finance Corporation
USAID	United States Agency for International Development
ATIRI	Agricultural Technology and Information Response Initiative
GDP	Gross Domestic Product
T&V	Training and Visit
MoA	Ministry of Agriculture
MoL	Ministry of Livestock
NALEP	National Agricultural and Livestock Extension Programme
NARP	National Agricultural Research Programme
NEP	National Extension Programme
SIDA	Swedish International Development Agency
IADP	Integrated Agricultural Development Programme

ABSTRACT

In Kenya small scale farmers produce most of the agricultural output but the adoption of agricultural technologies by this group of farmers has been low thereby contributing to poor productivity. Several approaches of dissemination have been used in the past an attempt to improve adoption of agricultural technologies without much success. In all the approaches, stakeholders were involved. There is however, no elaborate indication as to why and how they were involved or the interests they had in the approaches. This could probably explain why assessment of success of the approaches did not focus on human aspect as a cause of failure. Understanding of the stakeholder management issues is important as it helps the project implementers to identify the key stakeholders, define their roles and to know their expectations. Other stakeholder management issues include power and interest, management of finances, communication needs, conflict of interest, expectations, politics etc. Recognition of this fact is important because any project that does not address stakeholder needs ends up failing.

A study was carried out with the objectives of examining stakeholder management practices, identification of challenges in implementation and the perceptions CBOs in ATIRI. The study targeted all the ATIRI coordinators and the leaders of CBOs in 16 KARI centres. A sample of 150 CBOs was drawn from a global figure of 235 CBOs who were involved in ATIRI. Although KARI has been able to identify the key stakeholders in ATIRI, duplication of roles abide and that is likely to confuse and disillusion farmers. The small scale farmers are more interested in knowledge, skills and technology rather than financial support. The extension workers who are expected to be in frequent contact with farmers are inadequately equipped especially with transport facilities and they are also not very conversant with the research technologies. This implies that the information may not have been reaching the farmers in the intended form. The

amount advanced to the CBOs by A IIRI is too little to make meaningful impact and its release is also untimely.

In conclusion, the issue of adoption of agricultural technologies by small scale farmers is complex. Putting in place mechanisms for dissemination can not in itself improve technology up take. It is people who make things happen. Therefore stakeholder involvement and management issues will have to be addressed to ensure success in up scaling technology up take. KARI cannot achieve this alone. In put of all the stakeholders both current and potential will be required. In addition policy review and guidelines may be necessary to facilitate incorporation of players that would make credit accessible and affordable, enhance value addition to agricultural products, assist farmers access wider and better markets for their produce and minimize exploitation by brokers. Unless the stakeholder management issues are addressed the desired up scaling of technology may be difficult to achieve.

CHAPTER ONE: INTRODUCTION

1.0 Background

This chapter represents introduction into the strategic management concepts as they relate to the stakeholder management issues in project or activity planning implementation and evaluation. It goes further to highlight the various approaches that have been used in the dissemination of agricultural technologies to the small scale farmers in Kenya since 1900s to date as well as the identified short falls in each case. Prior to this study the analysis of the short falls in the dissemination approaches have dwelt on issues like effects of weather, cost of producer inputs such as fertilizers and pesticides, credit and transport infrastructure. The part played by those involved (the stakeholders) has usually not been given a lot of weight to as a cause of failure. This chapter also brings out the attempts being made by Kenya Agricultural Research Institute (KARI) in an attempt to improve technology up take through the Agricultural Technology and Information Response Initiative ATIRI and how the initiative operates. It is hoped that the findings of this study on the understanding of the importance of stakeholder management in project implementation will give a new dimension (human perspective) in reviewing technology adoption.

1.1 Concept of Stakeholder Management

Strategy is a general direction and scope of the organization over the long term or a specific and consciously intended course of action aimed at achieving advantage for the organization (Hammer, 1995). Ideally the strategy matches the organization resources to its environment. It also defines the obligation of the organization to its stakeholders. The stakeholders determine the political agenda of the organization in that satisfaction of their needs; especially the needs of key stakeholders determine the success or failure of the organization. It is therefore, the obligation of the organization to determine who its key stakeholders are and to identify and satisfy their expectations. The strategy thus, bridges the gap between the ends and the means (Brewer, 1999). Organizations must align their strategies and structures to the changing environment so as to find a fit between the planning environment, internal capabilities and strategic information (Rogers et al, 1999).

Stakeholders are individuals or groups that have a stake in the organization (Hill et al 2001). According to Howlett (1997), stakeholders are people or institutions that have an interest in the successful design, implementation and sustainability of a project. Freeman (1984) defines a stakeholder as any individual or group who could affect and be affected by the achievement of organization objectives. They could be in the internal or external environment (Johnson et al, 1999). Whether in the internal or external environment, stakeholders are in an exchange relationship with the organization; and in return to their contribution, they expect their interests

to be satisfied (Jones et al, 2001). "Any strategy that fails to satisfy stakeholder interests and concerns is bound to flop" (Jones et al, 2001).

Stakeholders can be key or non-key. Key stakeholders are those whose interests must be recognized especially if they are likely to be positively or negatively affected by the project (Smyrk, 2004). A stakeholder will support an activity or project either because their contribution is valued or their specific and general interests are being satisfied (Johnson et al, 1999) hence, the need to manage the stakeholder issues.

Stakeholder management is the process of identifying key stakeholders and winning their support. Stakeholder management process starts with identifying individuals or groups affected by and capable of influencing the project (USAID, 2005). Stakeholder analysis helps in (i) identification of reactions to change and its effects on the project (ii) identification of political blockers and supporters (iii) allows for complete understanding of political barriers to implementation and (iv) establishes key inputs for communication strategies (USAID, 2005). Stokes (2005) says that stakeholder management enables the organization to identify and classify initial and subsequent directed engagement with critical stakeholders in timely, planned and coordinated manner. The management will involve negotiating, contracting and managing relationships in order to motivate stakeholders in ways that support delivery of organization objectives (Stokes, 2005).

According to Seaman (2002), “many organizations spend a lot of time developing strategies only to see them fail to produce the desired results. This happens not because the strategies are flawed but they are simply not implemented or the process of implementation fails. In some cases, some of the key stakeholders get dissatisfied with the process and withdraw their support or the conditions in the environment make the implementation process impossible”

Development and implementation of a strategy involves partnerships and negotiation hence, project managers should take into account the organization objectives viz a vis stakeholder expectations. This ensures that the support and contribution of the various key stakeholders is maintained through out the project (Howlett, 2003).

Kenya Agricultural Research Institute (KARI) is mandated by the Act of Establishment (Cap 250) to develop and disseminate agricultural technologies but the institute lacks capacity to do extension work. Traditionally, KARI relied on the Ministry of Agriculture (MoA) extension to disseminate the technologies but there was concern that adoption especially by small scale farmers was low. This led to formation of Agricultural Technology and Information Response Initiative (ATIRI) in 2000, in an attempt to up scale technology uptake (ATIRI booklet, 2001). Strategy Implementation involves partnership (Johnson et al., 2001) and in this approach KARI recognises that expertise does not lie with project managers alone. Therefore, the institute works with partners who are extension service

providers such as MoA, Community Based Organization (CBOs), Non-governmental Organizations (NGOs) and the private sector. The arrangement calls for understanding of stakeholder involvement process, the management of issues and challenges therein. In partnering there is also need to take into account the relationship between the KARI purpose and stakeholder expectations. The institute must therefore, identify the key stakeholders in ATIRI, appreciate their contribution and address their interests because as David (1997) put it "stakeholders affect and are affected by an organization strategies"

1.1.1 Strategy Implementation

Strategy implementation involves translation of the strategy into organizational action through structure, design, resource planning and management of strategic change. The success of the strategy will therefore depend on how the various components are integrated (Johnson et al, 1999).

Many organizations spend a lot of time developing strategies only to see them fail to produce the desired results. This happens not because the strategies are flawed but in some cases some of the key stakeholders get dissatisfied with the process and withdraw their support; at other times the conditions in the environment make the process impossible for instance adverse weather conditions or cost of inputs in the case of agricultural sector.

Implementation of strategy involves partnership hence; the issue of strategy implementation should take into account the relationship between the organization purpose and the stakeholder expectations so as to ensure that the support of the various key stakeholders and their contribution is maintained. A strategy that fails to satisfy stakeholders' interests is doomed to flop (Johnson et al, 2001). Stakeholders exist in the internal as well as the external environment and they have an influence on the organization strategic choice (Johnson et al, 1999). Hence, the need to identify the crucial stakeholders, know their interest and the claims they are likely to make on the organization. All these issues should be considered when formulating a strategy so as to be able to identify the resulting challenges (Jones et al, 2000). Stakeholder involvement is the participation of those interested in an activity, project or programme. Development and implementation of any strategy, programme or project involve stakeholders in different perspectives and at different levels. Stakeholders may be actively, passively or ideally involved in an activity or programme.

Implementation of the selected strategy or programme causes changes and destabilizes status quo as the system moves from one state to the next. Stakeholders are all those individuals, groups, or organizations who have a claim or interest in a project, programme or activity. The stake can be a contribution or a gain of some sort thus, a stakeholder will support an activity either because their contribution is valued and/or their specific and general interests are being taken

care of in the process. For any human to support a programme or project it must be aligned at least to some of their goals and values (Hecks, 2003). Essentially a project must provide each stakeholder with at least some positive answer to the question '*what is in it for me?*' It is therefore, important to understand the social, economic and political influences in stakeholder participation (Russell et. al., 2003).

It is also important to understand the process of change and to anticipate the disruptions that are likely to be brought about by the strategy implementation. This enables the strategist to ensure that concerns of all the key collaborating and potential stakeholders are incorporated in the design and implementation process. In this way stakeholders' contributions will be valued and given a chance while striving to address their interests and concerns. Any strategy that fails to satisfy stakeholders' interests and concerns is bound to flop (Jones et al, 2001).

The stakeholders, whether in the internal or external environment are in an exchange relationship with the organization and in return to their contribution they expect their interests to be satisfied (Jones et al, 2001). It is based on the belief that expertise does not lie solely with the programme professionals but on all who have invested in the content of a programme or in its implementation and evaluation (GOK, 1999). This means that programmes and projects should be focused on a broader spectrum of partnerships.

Consequently, decisions should include the considerations and perspectives of multiple stakeholders. This helps to create process ownership and minimize resistance (Betts & Tepper, 2003). Stakeholder analysis is important as it provides important insights into each phase of the strategy viz. formulation, implementation and evaluation. In most cases stakeholders are involved at the formulation stage. It is at this stage where insights regarding various needs of interest groups that the strategy should meet should be highlighted. In practice, it is common to find that once this has been achieved, stakeholders are not consulted during implementation and evaluation phases. This is a an unfortunate situation because stakeholders are essential through out the process to illuminate issues and needs during the implementation (Banach et al, 2001)

1.1. 2 Politics in Stakeholder Management

Business enterprises are social institutions pursuing the interests of multiple interest groups, which may include employees, suppliers, customers, government, financiers and other parties that have a claim in the organization. The stakeholders affect and are affected by an organization's strategies yet the concerns of the diverse constituents vary and often conflict (David, 1997). However, it is not possible to achieve organization objectives without the support of the various stakeholders.

Development and Implementation of a strategy involves partnerships hence, the issue should take into account the relationship between the organization and the

stakeholders expectation so as to ensure that the support of the various key stakeholders and their contributions is maintained through out the project or programme. Thus, strategy formulation is generally a political issue in that while the organization's interest is to create wealth for its shareholders, the management has to recognize the interests and contribution of other stakeholders (Johnson et al, 1999).

Strategy formulation provides the direction for an organization in the pursuit of the desired objectives. Strategy formulation and implementation is a very complex undertaking. This calls for the designing of programmes that will bring to bear the competencies needed to implement the strategy. The desirable competencies include policy structures, mechanisms for performance monitoring and evaluation, control measures to encourage achievement of desired objectives, decision-making tools, investment incentives and communication with the various stakeholders to encourage achievement of the desired organization objectives. Success of a strategy depends on how the various components stated are integrated (Johnson et al, 2000).

This research seeks to establish how the stakeholders' interests are integrated in the ATIRI strategy.

1.1.3 Dissemination of Agricultural Technologies in Kenya

Agriculture has for a long time been recognized as the major source of livelihood for a large proportion of the Kenyan population and the small-scale farmers produce most of the agricultural output. In the 1970's, agriculture was one of the leading earners of foreign exchange contributed 57% to GDP (GoK, 2003). At the time, the co-operatives managed the marketing of farm produce as well as maintenance of access roads through cess funds. Other organizations that supported the farmers were financially stable, well managed and efficient for example the Agricultural Development Corporation multiplied breeding materials for farmers, the Agricultural Finance Corporation (AFC) advanced affordable credit to farmers, the Kenya Seed Company provided quality planting materials while the extension in the Ministry of Agriculture disseminated technologies from Agricultural Research Institutions such as KARI to the farmers.

In the 1980's there were changes in the business environment such as globalization, market liberalization, technological and communication development. The changes brought about intense competition for available resources in the product markets thus creating a new economic order, where knowledge was a primary resource and collective knowledge a key strategic resource for success of an organization (Drucker, 1993). These changes have affected Kenya's agricultural sector in form of decontrol of prices and interest rates.

Among the factors that have impacted negatively to agricultural productivity are low, limited access to credit by small-scale farmers and poor marketing infrastructure (GoK, 2002). The high prevalence of HIV/AIDS pandemic has also affected agricultural productivity. The Government Policy of 1986, among other things focused on adoption of more productive practices in agriculture using improved varieties, fertilizer and control of diseases and pests. Emphasis was put on research into new varieties in maize and food grains, production of tea, coffee and vegetables to generate high income and employment. Through the same policy the support to extension services was reduced (GOK, 1986).

The mismanagement of statutory bodies that subsidized farmers in terms of access to affordable credit and farm inputs, left farmers vulnerable. They had to rely on commercial banks for credit and unregulated sources of planting and breeding materials (GOK, 1986). In order to survive and thrive in the changing environment, Kenya's farmers especially small-scale farmers required a lot of information on relevant and appropriate technologies that would increase productivity and make their farm produce competitive in the local and international markets.

However, despite the efforts agricultural sector has performed dismally especially in the last decade declining from a growth of 4.4% in 1996 to 1.5% in 1999 and negative 2.4 % in 2000. Various factors could have contributed to this scenario, for example, the messages and/or language used in disseminating the technologies by the extension personnel may not have been comprehensible to farmers or the

technologies developed were complex and not adoptable or the technologies were not affordable especially to the resource poor small-scale farmers who also happen to be experiencing food insecurity and poverty or stakeholder management in the dissemination of strategies was flawed.

Since the introduction of extension services by the British Colonial government in Kenya, various approaches for the dissemination of agricultural technologies have been used. Between 1900-1970 Conventional Extension approach was used to cater for technological needs of the White Settler farmers in the White Highlands and the Coast. The extension services mainly targeted cash crops in large-scale farms. The small-scale farmers (Africans natives), largely engaged in production of food crops were either very poorly catered for, or completely left out in the provision of extension services. The post independent government continued with the same practice (World Bank Report, 2002).

Between 1970-1980 the Integrated Agricultural Development Programme (IADP) supported by the United States Agency for International Development (USAID) was introduced in Kenya. The objective was to address problems of inputs and marketing of produce through farmer cooperatives to improve the status of the small-scale farmers. This approach failed because of administrative problems, coordination difficulties and poor loan recovery. The USAID one of the key stakeholders withdrew their support due to financial mismanagement by the beneficiaries (World Bank Report 2002).

The Training and Visit (T&V) approach was introduced in Kenya with the support of the World Bank in 1980s under the National Extension Programme (NEP). Its aim was to boost capacity building of extension workers and to strengthen researcher-extension linkages to increase adoption by small scale farmers to stimulate agricultural productivity (World Bank report, 1999). According to Benor & Boxer (1984) the intent was to provide well-informed village level extension workers and regularly bring farmers problems to research. The approach was based on the assumption that appropriate extension messages would be readily available (Madhur, 1999). In reality message stock was inadequate and most information was disseminated through field days and barazas. Generation of new technology was also slow (World Bank Report, 1999). The approach is also said to have been supply driven and heavily dependent on donor funding (Madhur, 1999).

Within this period (1980s) the government introduced a policy to minimize support to essential services such as research and extension (GOK, 1986). The T&V approach failed because it lacked unified management /reporting systems, poor transport facilities and lack of credit to farmers. Elite farmers were used as contacts and therefore small-scale farmers did not benefit much. The extension funds were also not readily available due to delayed disbursements, late submission of audit reports. Training resources especially venues were used for political patronage by administration. These developments disillusioned the World Bank and the farmers

who were key stakeholders and hence, the programme could not continue (World Bank report 2002).

In 2000 the National Agricultural and Livestock Extension Programme (NALEP) was launched. It was the latest approach supported by the Swedish International Development Agency (SIDA). The programme is broad-based; more farmer-oriented and uses Focal Area Approach. It is aimed at strengthening the capacity of extension staff to meet farmer demands for information and technology.

KARI was concerned about the low agricultural technology adoption by the small scale farmers and therefore, affirmative action had to be taken to encourage the technology up take as well as turn around the declining agricultural productivity (ATIRI Booklet, 2000). The Agricultural Technology and Information Response Initiative (ATIRI) was the strategy adopted by KARI in an attempt to encourage demand for agricultural research technology by the small-scale farmers in 2000.

1.1.4 The ATIRI Approach to Dissemination

Kenya Agricultural Research Institute (KARI) is the major national agricultural research institution in the country, established through an Act of Parliament Cap 250 and mandated to research and develop technologies in agriculture, veterinary sciences and forestry, and to disseminate research findings. However, the Act of Establishment did not give KARI the mandate to do extension so the institute had

to rely on the Ministry of Agriculture extension and other service providers for dissemination (GoK, 1986).

There has been concern in KARI that, although research great advances had been made in development of new and improved animal breeds and crop varieties, adoption of the technologies especially by small-scale farmers was low (ATIRI Booklet,2000).

In 2000 KARI formulated the ATIRI strategy with the support of the World Bank of ATIRI in response to the overall objective of the National Agricultural Research Programme phase II (NARP II) to improve food security, reduce poverty and contribute to sustainable natural resources management (ATIRI Booklet, 2000) The objective was to work with partners to meet small scale farmers' technology and information needs through catalyzing the adoption of technology by shifting dissemination process from supply to demand driven (ATIRI Booklet, 2000). This was to be achieved through creating awareness of ATIRI programmes, soliciting improved proposals, formalizing collaboration with partners, enhancing capacity of farmer groups and evaluating dissemination approaches for effectiveness and efficiency ATIRI Booklet, 2000).

ATIRI differs from National Agricultural Livestock and Extension Programme (NALEP) in that although both approaches are demand driven, ATIRI empowers farmers to acquire start up seeds/inputs and to demand technology and information

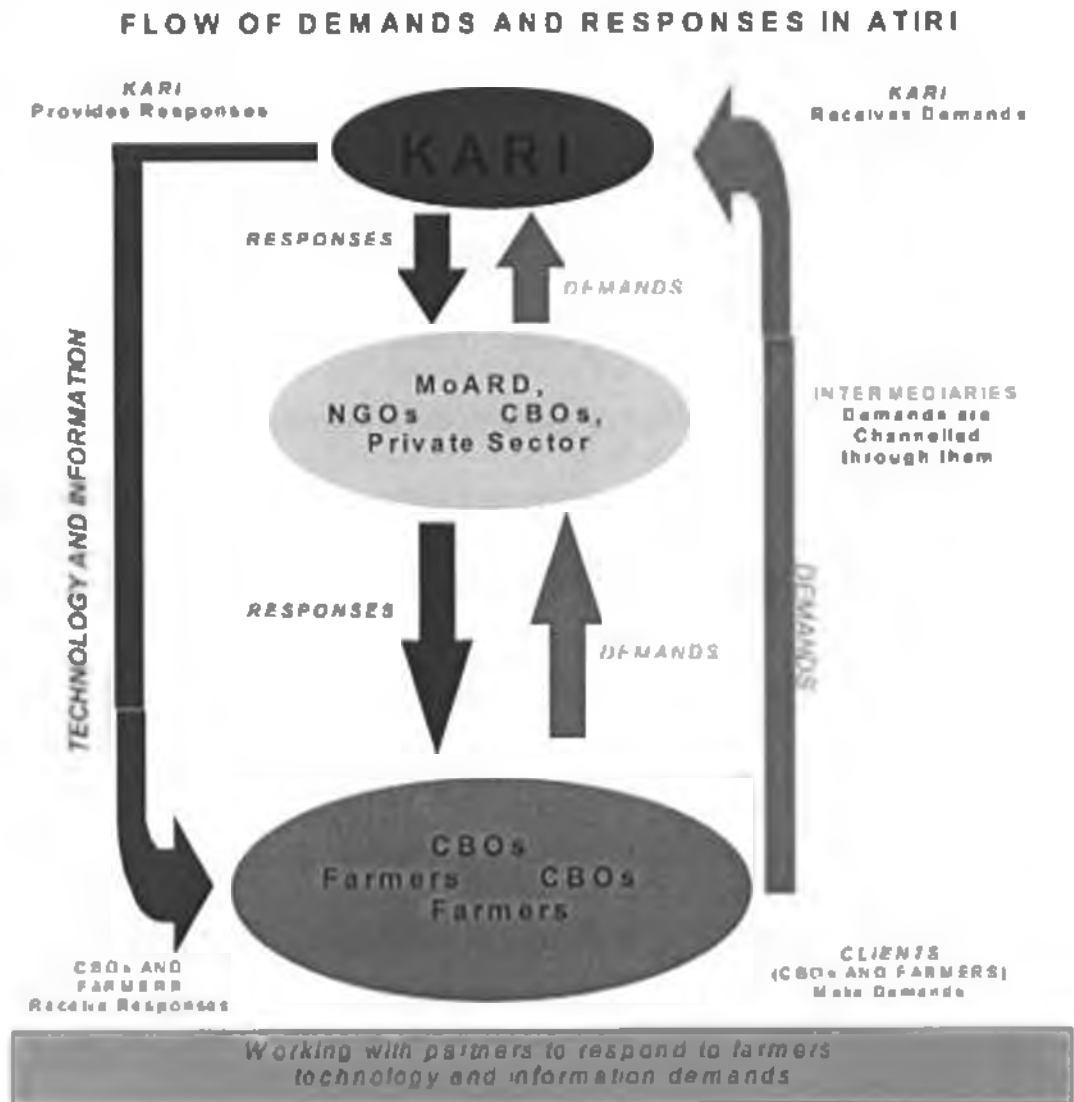
from the service providers (Kamau GM et al; 2001). This was to be done in collaboration with key stakeholders.

KARI recognizes that effective partnerships require compatibility of working styles, personalities as well as a strong convergence of interests (Kamau et al 2001). The initiative brings together Community Based Organizations (CBOs), Ministry of Agriculture extension, private sector and Non-governmental Organizations (NGOs). Implementation of ATIRI was initiated late 2000 with 9 pilot KARI centres and 70 CBOs. The selection was based on management capacity and agro-ecological conditions. The aim of ATIRI was to be in regular contact with 1000 CBOs through partner organizations by the end of NARP II in 2003 (ATIRI Booklet, 2000). This required improvement in communication for information delivery and enhanced feedback. Currently ATIRI is operational in 16 KARI centres and working with the 235 CBOs in collaboration with Ministry of Agriculture Extension and NGOs (Kamau et al, 2004). With the new elements in the ATIRI strategy, it is believed that there will be positive impact in up scaling adoption of agricultural technologies by the small-scale farmers.

The initiative brings together Community Based Organizations (CBOs), Ministry of Agriculture (MoA) extension, Non-governmental Organizations (NGOs) and private sector. By 2003 ATIRI was operational in 16 KARI centres and working with 235 CBOs against the initial projection of 1000 (Kamau et al, 2004). Through ATIRI, the institute hopes to make a positive impact in up scaling

adoption of agricultural technologies by the small-scale farmers. Figure 1 below represent a model of flow of information demand and response flows between the farmers and KARI. It also shows the various stakeholders (intermediaries) through which also the information flows from KARI to the farmers.

Figure 1. The ATIRI model



Source: Adapted from ATIRI Booklet, 2001

The Act of Establishment Chap 250 through which KARI was established gave the institute the mandate to do research in agriculture, livestock and forestry. The institute was also to ensure dissemination of the research technologies. Unfortunately the Act did not give KARI mandate to do extension. The institute therefore, had to rely on extension workers in the ministries of Agriculture and Livestock for these services. Unfortunately the absorption of agricultural technologies remained low despite the advances that had been made in research. This was a major concern for KARI. In recognition of the inadequacy in capacity and capability to do extension, when ATIRI started the institute incorporated other partners to enhance delivery of agricultural technologies to the small scale farmers (ATIRI booklet, 2001). It is however, interesting to note that the institute has no control over the operations of the partnering groups and organizations since they were formed for different purposes and have their own objectives.

In this set up, understanding of stakeholder management issues is crucial ranging from identification of key stakeholders, why and how they are involved, their expectations vis a vis KARI objectives. It is also important to recognize that failure to address stakeholder interests adversely affect ATIRI success.

1.2 Statement of the Problem

Small scale farmers are major players in agriculture but over the years they have been under provisioned in terms of appropriate technology. The agricultural sector performance has been declining (GOk, 2003). Climatic conditions, limited access

to credit by small-scale farmers, poor marketing infrastructure, mismanagement of statutory bodies, uncontrolled farm input prices and unregulated sources of planting/ breeding materials have often been advanced as possible causes for this scenario (GOK, 2002). To achieve and sustain technology up take by the small scale farmers, there is need for effective dissemination. Although use of insufficient information and inappropriate technologies has often been a concern, rarely has flaws in the dissemination process and the players involved been addressed.

The Act of Establishment Cap 250 of the laws of Kenya did not give KARI the mandate to do extension (GoK, 1986). The institute works with partners in the dissemination and therefore, management of stakeholders therein can be a challenge. According to Stokes (2005), stakeholder management involves negotiating, contracting and managing relationships in order to motivate stakeholders in ways that support delivery of organization objectives. In ATIRI partnerships are emphasized and managing the relationships therein can be a challenge hence, the need for a study to investigate stakeholder management practices and the perception of stakeholders in relation to KARI's objective of up scaling technology uptake.

1.3 Objectives of the Study

1. To examine the stakeholder management practices in ATIRI
2. To identify perceptions of groups partnering with KARI in the ATIRI

1.4 Significance of the Study

Low adoption of agricultural technologies by the small scale farmers has been and still is a major concern in Kenya considering that this group of farmers are the main players in agricultural production.

Since the introduction of extension services by the British Colonial government in the 1900s, various agricultural technology dissemination approaches have been used. These include Conventional Extension approach (1900-1970), the Integrated Agricultural Development Programme (1970-1980) supported by the United States Agency for International Development (USAID), the Training and Visit (T&V) approach in 1980s supported by the World Bank under the National Extension Programme (NEP), the Research-Extension-Farmer Linkage and the National Agricultural and Livestock Extension Programme (NAL.EP) in 2000 supported by the Swedish International Development Agency (SIDA).

In all the past dissemination approaches stakeholders were involved either as policy makers, service providers, financiers or beneficiaries. However, despite the efforts made adoption of agricultural technologies by the small scale farmers has been minimal.

This study will be significant to the agricultural researchers and policy makers in the sector by identifying the contribution of stakeholders in the success or failure of technology adoption by the small scale farmers.

The study will add to the knowledge of stakeholder management as its effects unfold in influencing agricultural technology up take. It is hoped that:

1. Findings of this study can be used by future scholars in further research on dissemination of agricultural technologies
2. The findings of the study may also help policy makers in the review of agricultural policies to enhance technology uptake and hence productivity.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter focuses on the literature review of on stakeholder management concept and previous studies that have been done in this field regarding the importance of involving stakeholders in project planning and implementation. The section also highlights the various approaches that have been used since 1900 to date in the dissemination of agricultural technologies to the small scale farmers in Kenya. The findings of the analysis done on the causes associated with the failure of these approaches have been highlighted including the interventions made by KARI in an attempt to improve technology adoption by the small scale farmers.

2.1 Stakeholder Management Concept

Stakeholders are individuals or groups that have a stake in the organization (Hill et al. 2001). According to Howlett (1997), stakeholders are people or institutions that have an interest in the successful design, implementation and sustainability of a project. Freeman (1984) defines a stakeholder as "any individual or group who could affect and be affected by the achievement of organization objectives". Simply, a stakeholder is anyone who has an interest in a project i.e. customers, project teams, suppliers customers etc. (Peters, 2005).

The stake can be a contribution or a gain and a stakeholder will support an activity either because their contribution is valued and/or their specific and general

interests are being addressed in the process (Johnson *et al.*, 1999). Key stakeholders are those whose interests must be recognized if the project is to be successful – especially those who will be positively or negatively affected during or after completion of the project (Smyrk, 2004) Stakeholders exist in the internal and external environment and they have an influence on the organization strategic choice (Johnson *et al.*, 1999).

Knowing stakeholders is important as it enables identification of their needs and wants such as constraints and guidelines. The next step is to ensure they have an opportunity to participate in decisions about their future and this empowers them to adopt to change. According to Peters (2005), the biggest weakness in stakeholder management is failure to address stakeholder needs and wants and the challenge lies in knowing all the stakeholders.

Issue management is the process of closing the gap between the organization action and the stakeholder expectations (Yanzey, 2005). It is an ongoing process of aligning corporate behaviour with stakeholder expectations (Government of Ontario, 1998). It involves identifying, developing and coordinating responses to critical issues through information to stakeholders (Government of Ontario, 1998). According Yanzey (2005), early identification of issues, prioritizing and close monitoring of their evolution can make issues manageable by either changing company behaviour or its stakeholder expectations or both. Some of the issues in stakeholder management include top management support, relationship with

customers, stakeholder expectations, conflict resolution and management of information.

Management has always been about change. It is uniquely the task of making more or better for less in the face of pressures from global competition (Andrzej, 2000). Tom Peters (2005) views change as a constant organizational revolution and failure to adapt leads to organization failure. According to Kongoro (1998) lack of commitment by top management leads to poor strategy implementation. Market oriented businesses are committed to understanding latent and expressed needs of their customers and coordinating activities of the business so as to create superior customer value (Day 1994, Kohli 1990).

Business whether large or small become successful by developing relationships with customers (Baron, 1995) Thus, organizations need to be certain whom they are serving or ought to serve to ensure that the needs of their customers are satisfied. The interest should not only be on the current but also potential customers.

2.2 Stakeholder Management Issues

Development and implementation of a strategy involves partnerships and negotiations hence, the issue should take into account the relationship between the organization and the stakeholders expectation so as to ensure that the support of the various key stakeholders and their contributions is maintained through out the

project or programme”(Howlett, 2003). Project managers need to “... have an awareness of stakeholder influence so to respond appropriately to garner support for the project” (Bourne, et al 1999). Business enterprises are social institutions pursuing the interests of multiple interest groups or stakeholders (Frank 1999). Strategy formulation is generally a political issue in that while the organization's interest is to create wealth for its shareholders, the management has to recognize and address the interests and contribution of other stakeholders” (Johnson et al, 1999).

Many organizations spend a lot of time developing strategies only to see them fail to produce the desired results. This happens not because the strategies are flawed but they are simply not implemented or the process of implementation fails for one reason or another. In some cases, some of the key stakeholders get dissatisfied with the process and withdraw their support. at other times the conditions in the environment make the implementation process impossible” (Seaman, 2002). The stakeholders, whether in the internal or external environment are in an exchange relationship with the organization and in return to their contribution they expect their interests to be satisfied (Jones et al, 2001). Therefore, decisions should include the considerations and perspectives of multiple stakeholders. This helps to create process ownership and minimize resistance (Tepper, 2003).

“Stakeholder involvement is based on the understanding that expertise does not lie solely with programme professionals” (ODCD, 1999). The involvement brings

together stakeholders to develop consensus, recommendations to improve the decision making process (EPA, 2003). Stakeholders may be involved in multiple roles and various functions at different times (Russel et al, 2004). Stakeholder involvement is important through out the programme to provide insight for various issues and needs that the programme should meet (Banach et al, 2001). Stakeholders provide insight at during programme planning, implementation and evaluation (Russel et al, 2004).

In most cases stakeholders are involved at the formulation stage. It is at this stage where insights regarding various needs of interest groups that the strategy should meet should be highlighted. In practice, it is common to find that once this has been achieved, stakeholders are not consulted during implementation and evaluation phases. This is an unfortunate situation because stakeholders are essential throughout the process to illuminate issues and needs that arise during the implementation" (Banach et al., 2001).

Stakeholders may be actively, passively or ideally involved in an activity or programme. Mays (2004) identified prerequisites for effective collaboration as (i) good information, time to participate, build trust, learn to resolve disputes and create solutions (ii) willingness to learn (iii) shared responsibility to effect and implement decisions and (iv) commitment of participants.

The purpose of involving stakeholders is (i) to avoid conflict (through negotiation, mediation and collaborative learning), (ii) to develop shared vision that

stakeholders can agree to or buy into and (iii) to formulate creative solutions that may not have emerged from traditional planning process (Mays, 2004). Mays (2004) further states that stakeholder involvement is likely to enhance credibility in decision making process. The stakeholders affect and are affected by an organization's strategies yet the concerns of the diverse constituents vary and often conflict (David, 1997). However, it is not possible to achieve organizational objectives without the support of the various stakeholders.

This calls for the designing of programmes that will bring to bear the competencies needed to implement the strategy. The desirable competencies include policy structures, mechanisms for performance monitoring and evaluation, control measures to encourage achievement of desired objectives, decision-making tools, investment incentives and communication with the various stakeholders to encourage achievement of the desired organization objectives. Success of strategy will therefore, depend on how the various components are integrated (Johnson *et al.*, 2000).

Few individuals have the power to determine an organizational strategy unless they are a part of a stakeholder group. An organization need to carry out stakeholder analysis so as to identify the key stakeholders, their interests and concerns as well as the claims they are likely to make on the organization and to identify the resulting strategic challenges (Hill, *et al.*, 2001). The analysis provides important insights into each phase of the strategy (formulation, implementation and

evaluation). It also helps in judging how interested each stakeholder group is in impressing its expectations on the organization choice of strategy and whether the stakeholders have the means to do so. Table 1 is a model used in assessing the power of stakeholders in strategy formulation and implementation.

Table 1: The Power and interest Matrix model

Power	Level of Interest	
	<i>Low</i>	<i>High</i>
<i>Low</i>	Minimal effort	Keep satisfied
<i>High</i>	Keep satisfied	Key players

Source: Adapted from A. Mendelow proceedings of 2nd International Conference on Information Systems, Cambridge, MA 1991 as cited by Johnson & Scholes in 1999

The stakeholders with *low power and low interest* are mostly passive stakeholders and may not have a lot of influence on a project. Some stakeholders may be relatively passive stakeholders but can frustrate organizational efforts if their expectations are not addressed. They are said to have *high power but low interest* in a project. The third category of stakeholders is those with *high power and high interest*. These are the key players in the project and should be a key consideration in strategy formulation because they can easily influence project success or failure in the case of ATIRI for example the research scientists would fall in this category because they have the technical know how and can decide not to share it. The last group is those stakeholders who have *low power but have high interest* in a project.

They can be very powerful players in influencing attitudes of the more powerful stakeholders through lobbying and their needs should be addressed through information. In this study farmers would fall into this category.

Stakeholder expectations differ and therefore, it is normal for conflicts to exist regarding importance and desirability of many aspects of a strategy (Johnson et al, 1999). Conflict management may sometimes call for compromises to be made between expectations that cannot be met at once and setting of priorities over certain issues (Johnson et al, 1999). This can be more complicated especially if external stakeholders are involved in formulation and implementation of a strategy.

Effective communication is essential to ensure key stakeholders do not miss out on vital information (Smyrk, 2004). The choice of messages, language, tools and the media of communication to be used is very important. These choices should be guided by the needs of the target audience. The messages must be simple and comprehensible (Smyrk, 2004). In dealing with stakeholders the issues that are likely to cause conflict need to be addressed (Johnson et al, 1999) for example, disbursement of funds, proposal submission procedures and choice of projects, budget requirement for each action. Monitoring and evaluation reports are necessary to enlighten the stakeholders on whether the project is meeting objectives, to what extent and if not why (Mack, 1998).

Power is the ability of individuals or groups to persuade or coerce or induce others into following certain courses of action or a mechanism through which one set of

expectations will dominate strategic development to seek compromise with others (Johnson et al., 2002). Power can either be positive or negative. Positive power arises from power sharing, democratic and participatory decision-making and implementation.

It has the potential to enhance the power of the sharer (Kanter, 1979). Negative power (coercion) results from lack of information. In most cases few individuals have the power to determine an organizational strategy unless they are a part of a stakeholder group. The sources and indicators of power for both the internal and external stakeholders are as tabulated in table 2.

Table 2 Source of power model

<i>Sources of power</i>	<i>Indicators</i>
<p><u>external stakeholders</u></p> <ul style="list-style-type: none"> -control of strategic resources -involvement in implementation -possession of knowledge (skills) -internal links with management 	<ul style="list-style-type: none"> -status -resource dependence -negotiation arrangement, symbols - care & attention paid to correspondence
<p><u>Internal stakeholders</u></p> <ul style="list-style-type: none"> -Proportion of resources controlled by the group -position in hierarchy, reputation etc 	<ul style="list-style-type: none"> -claim on resources -status

Source Adopted from A. Mendelow proceedings of 2nd International Conference on Information Systems, Cambridge, MA 1991 as cited by Johnson & Scholes in 1999

Many organizations spend a lot of time developing strategies only to see them fail to produce the desired results. This happens not because the strategies are flawed but they are simply not implemented or the process of implementation fails for one reason or another (Seaman, 2002). In some cases the strategy lacks top management support or some of the key stakeholders get dissatisfied with the process and withdraw their support, at other times the conditions in the environment make the process impossible. Strategy implementation involves translation of the strategy into organizational action through structure, design, resource planning and management of strategic change. The success of the strategy will therefore, depend on how the various components are integrated (Johnson et al, 1999).

Implementation of strategy involves partnership hence the issue of strategy implementation should take into account the relationship between the organization purpose and the stakeholder expectations so as to ensure that the support of the various key stakeholders and their contribution is maintained. Stakeholders exist in the internal as well as the external environment and they have an influence on the organization strategic choice (Johnson *et al.*, 1999).

The stakeholders, whether in the internal or external environment are in an exchange relationship with the organization and in return to their contribution they expect their interests to be satisfied (Jones et al, 2001) A strategy that fails to satisfy stakeholders' interests is doomed to flop (Johnson *et al.*, 2001). Hence, the

need to identify the crucial stakeholders, know their interests and the claims they are likely to make on the organization.

For any human to support a programme or project it must be aligned at least to some of their goals and values (Hecks, 2003). Essentially a project must provide each stakeholder with at least some positive answer to the question '*what is in it for me?*' It is therefore, important to understand the social, economic and political influences in stakeholder participation (Russell *et al*, 2003). Development and implementation of any strategy, programme or project involve stakeholders in different perspectives and at different levels. Stakeholders may be actively, passively or ideally involved in an activity.

According to Jones (2001) it is important to understand the process of change and to anticipate the disruptions that are likely to be brought about by the strategy implementation. This enables the strategist to ensure that concerns of all the key collaborating and potential stakeholders are incorporated in the design and implementation process. In this way stakeholder contributions will be valued and given a chance while striving to address their interests and concerns. Any strategy that fails to satisfy stakeholders' interests and concerns is bound to flop (Jones *et al*, 2001).

Stakeholder involvement is based on realization that expertise does not lie solely with the programme professionals but on all who have invested in the content of a programme or in its implementation and evaluation hence, programmes and

projects should be focused on a broader spectrum of partnerships (GOK, 1999). Stakeholders are essential throughout the process to illuminate issues and needs during the implementation (Banach, *et al*, 2001). But in most cases stakeholders are involved at the formulation stage. At this stage insights regarding various needs of interest groups should be highlighted (Banach, *et al*, 2001). Consequently, decisions should include the considerations and perspectives of multiple stakeholders. This helps to create/enhance ownership and minimizes resistance (Tepper, *et al* 2003). However, in practice once strategies have been formulated, stakeholders are rarely consulted during implementation and evaluation phases.

2.3 An Overview of Agriculture and Technology Dissemination

Poverty and food insecurity have been major concerns of Kenya government since 1963 and forty years down the line these problems still persist. This may be linked to the dismal performance in the agricultural sector which is the backbone of the economy (GOK, 2003).

Currently, the agricultural sector alone provides 62% of total employment and along with Tourism, Trade and industry contributes 50 % to Gross Domestic Product (GDP). However, in the last decade agricultural growth declined from 4.4% in 1996 to 1.5% in 1999 and a negative 2.4 % in 2000. Among the factors said to have impacted negatively on agricultural productivity are limited access to credit by small-scale farmers, poor marketing infrastructure and use of insufficient

information and inappropriate technologies (GoK, 2002). The high prevalence of HIV/AIDS pandemic has also affected agricultural productivity (GoK, 2002).

Since the introduction of extension services by the British Colonial government in Kenya in the 1900s, various agricultural technology dissemination approaches have been used. These include Conventional Extension approach (1900-1970), the Integrated Agricultural Development Programme (1970-1980) supported by the United States Agency for International Development (USAID), the Training and Visit (T&V) approach in 1980s supported by the World Bank under the National Extension Programme (NEP), the Research-Extension-Farmer Linkage and the National Agricultural and Livestock Extension Programme (NALEP) in 2000 supported by the Swedish International Development Agency (SIDA).

From the reports on extension work it is indicative that in all the past technology dissemination approaches stakeholders were involved. Their involvement was either as research officers, policy makers, extension service providers, or financiers of the programmes or beneficiaries from the technologies. However, despite all these efforts the level of adoption of agricultural technologies among the small scale farmers has been low.

An affirmative action had to be taken to encourage up take of agricultural technologies by the small scale farmers. In an effort to achieve this objective KARI mooted the Agricultural Technology and Information Response Initiative (ATIRI).

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

The chapter describes the procedures that were followed in conducting the study. It is a discussion of the research design, the population and the sampling procedure used. The instrument used for data collection and how data analysis was done.

3.1 Research Design

The investigation used survey research method. This approach enables the researcher to collect data from members of the population in order to determine the current status of that population with respect to one or more variables (Mugenda, 1996).

The survey was carried out at two levels. The first level covered the coordinators in the 16 KARI centres where ATIRI is operational. This was aimed at gathering information on how KARI was handling the stakeholder management issues in the implementation of ATIRI to establish whether it was in line with what generally acceptable for successful project implementation. The issues under investigation included identification and involvement of stakeholders, management of finances, and information, satisfaction of stakeholder interests and conflict of interest.

The second level targeted the consumers of the agricultural technologies. This was carried out to establish the perceptions of the stakeholders and since it was not

possible to study all the stakeholders the investigation zeroed in on the CBOs involved in ATIRI. These CBOs comprised of small scale farmers (consumers of agricultural technologies).

3.1.1 Population

The stakeholders in ATIRI are many. They include KARI scientists, government ministries, donors, non-governmental organizations, community based organizations and private sector. Due to resource constraint (money and time) it would not have been possible to study all the stakeholders. Hence, the population of study was narrowed down to ATIRI project coordinators in the 16 centres to represent the source of the agricultural research technologies and the CBOs in each centre whose members are small scale farmers to represent the consumers of these technologies. At the time of the study there were 235 CBOs involved in the initiative as per records maintained at the ATIRI coordination office at KARI headquarters.

3.1.2 Sampling

A sample was drawn from a sampling frame of 235 CBOs comprising of small scale farmers involved in ATIRI. This was determined using the formula by Schaeffer (1990).

$$n = \frac{Npq}{N-1) D + pq}$$

Where

n = the desired sample size

N = the population.

p = the proportion of the target population estimated to respond.

$q = 1-p$ = the proportion that will not respond.

D = sampling error = $\frac{E^2}{4}$

4

Using this formula a sample of 150 was arrived at. After establishing the sample size for the centre, the specific CBOs to be studied were picked at random but proportional to the total number of CBOs in each centre.

3.2 Data Collection Methods

Both questionnaires and interviews were used to collect primary data. The questionnaires consisted of closed and open ended questions. This was necessary to allow for more information to be obtained. Drop and pick method was used. At the time of picking the responses personal interviews were carried out to seek clarification on the answers and explanation of some the issues. Secondary data from KARI review and annual reports was also used.

3.3 Data Analysis

The data obtained in this study was coded and analyzed using the Statistical Package for Social Scientists (SPSS). The results of the analysis assisted in construction of frequencies and the results are then presented in form of tables and figures. From these results comparisons and inferences from the responses obtained were made. This assisted in bringing out stakeholder management

practices, identification of critical challenges faced in the management of stakeholders in ATIRI and the perceptions of CBOs.

CHAPTER FOUR: RESULTS AND DISCUSSION

4.0 Introduction

This chapter presents the results of the data analysis on stakeholder management issues, such as identification of stakeholders and involvement, management of information and finances, the perception of CBOs about ATIRI and the challenges arising during ATIRI implementation. The challenges faced in the ATIRI and the perception of stakeholders (CBOs) about ATIRI services in the dissemination of agricultural technologies.

In this study the coordinators and the CBOs involved ATIRI in the 16 KARI centres were the focus of investigation. All coordinators responded to the questionnaire, but, only CBOs in 13 centres were investigated. The response was about 70%. This was because at the time of the study some of the CBOs involved in the Phase I of ATIRI (2000- 2003) had since fallen off, while others had been weaned after completing the funding cycle. There was a delay in the implementation of phase II. In most centres the phase II had not started due to delays in the disbursement of funds. This phase was to be supported through Kenya Agricultural Productivity Programme (KAPP) through the World Bank funding.

4.1 Research Profiles

This was an investigation of the management practices in the ATIRI which is a strategy being used by KARI in an attempt to enhance agricultural technology adoption by the small scale farmers. The research study was a survey conducted among the ATIRI coordinators and the CBOs involved in the project.

ATIRI Profile

ATIRI was formulated by KARI in 2000 in response to the overall objective of the National Agricultural Research Programme phase II (NARP II) to improve food security, reduce poverty and contribute to sustainable natural resources management (ATIRI Booklet, 2000). The objective was to work with partners to meet technology and information needs of farmers through catalyzing the adoption by shifting dissemination process from supply-driven to demand-driven (ATIRI Booklet, 2000). This was to be achieved through creating awareness of ATIRI programmes, soliciting improved proposals, formalizing collaboration with partners, enhancing capacity of farmer groups and evaluating dissemination approaches for effectiveness and efficiency (ATIRI Booklet, 2000). ATIRI is operational in 16 KARI centres located in various parts of the country from coast, central, rift valley, western and the arid lands in Marsabit. The small scale farmers involved in ATIRI practice general agriculture, mixed farming and livestock rearing.

The ATIRI coordinators represent KARI management at the centre level in as far as the activities of ATIRI are concerned and that is why they were selected to be respondents. Some of the coordinators have been coordinating for 6 years while others are relatively new (Table 3).

Table 3: Period Coordinators have been involved in ATIRI

Period of ordination (Years)	Number of coordinators
1.5	1
2	1
2.5	1
3	2
4	1
5	3
6	5
	Total 13

Source: Research results

CBO profile

The CBOs in this study refer to the organized groups whose membership comprise of small scale farmers. The CBOs under investigation are only those that are involved in ATIRI. Some of the CBOs have worked with ATIRI since its inception in 2000, while others came on board in phase II. Thus the duration of involvement ranges from 1 year to 6 years. Originally there were 235 CBOs but

some of them fell off or were weaned at the end of phase I. It is from this total number of CBOs that the sample for investigation was drawn. A total of 126 CBOs participated in the investigation (Table 4).

Table 4: The duration CBOs have been involved in ATIRI

Period involved in ATIRI (Years)	Number of CBOs
1	25
1.5	9
2	8
3	39
4	27
5	14
6	4
	Total 126

Source: Research results

4.2 Results of the Study by Objectives

The objectives of the study were (i) to examine stakeholder management practices in ATIRI and (ii) to establish stakeholder perceptions about ATIRI. The study findings are presented as per the objectives.

4.2.1 Objective 1: Stakeholder Management Practices In ATIRI

The aim of this objective was to establish whether stakeholder management in ATIRI is in line with what is generally accepted by the strategic management

experts and to identify existing gaps so as to make recommendations on stakeholder management issues that need to be addressed to enhance achievement of ATIRI objectives.

Identification of key stakeholders

Stakeholder management process starts with identifying individuals or groups affected by and capable of influencing the project (USAID, 2005). The research investigation revealed that the key stakeholders at each centre have been identified and their contributions clearly defined. The respondents were asked to state who the stakeholders were in their areas of operation. In 53.3% of responses, MoA and CBOs were identified as key stakeholders while the most common was MoA, at 40%. The appearance of MOA as the key stakeholder in almost all centres is understandable considering that the main providers of extension services are mainly from this ministry.

The role of extension workers in ATIRI is to assist farmers in technology identification, proposal preparation, training and they also complement KARI coordinators in backstopping of the technologies during implementation. The results of the identified key stakeholders by the each centre ATIRI coordinators are summarized in table 5. Determination of key stakeholders and how they are involved in the project right from the planning stage serves as an early pointer to project success. This involvement is important since it enables the project

manager(s) to know the interests of the key stakeholders so as to be able to address them during project implementation so as to win their support.

Table 5. Key Stakeholders in ATIRI

Stakeholders	Frequency	Percent
Community Based Organizations	2	13.33
Ministry of Agriculture	6	40
KARI Scientists	2	13.33
Ministry of Livestock	1	6.67
Non Governmental Organizations	1	6.67
Other Govt institutions	1	6.67
Catholic church	1	6.67
Other church organizations	1	6.67
Total	15	100

Source: Research results

The research investigation revealed that the key stakeholders at each centre have been identified and their contributions clearly defined. Apparently there were no guidelines or restrictions in ATIRI as to how many stakeholders were to be included in the project per centre. The respondents were also required to list the contribution of the key stakeholders. This was to assist in understanding why they were considered key. Most of the stakeholders played two or three roles as indicated in table 6. From the summary it can be deduced that the main contributions from the identified key stakeholders in ATIRI are identification of

technologies, proposal preparation, transport, training of farmers and project evaluation.

Table 6 Stakeholder contributions in ATIRI

Stakeholders	Contributions and Frequency					
	funding	Training	Proposal Prep	project evaluation	transport	Technology identification
MoA Extension	0	14	15	11	0	16
NGOs	8	5	8	0	6	9
Catholic Church	6	5	6	2	7	8
KARI Scientists	16	16	16	16	10	16
Private Sector	5	4	5	7	2	5
Other Government Ministries	0	2	6	0	0	8
Mol. Extension	0	4	4	0	0	4
CBOs	0	0	9	7	5	10

Source: Research results

A stakeholder will support a project if it in some way provides the answer to the question "what is in it for me" (Hecks, 2003). In ATIRI the main stakeholders are the MoA and the CBOs. The contributions of the stakeholders are as many as the stakeholders in each centre and as the centres themselves. The implication of this finding is that the specific roles to be played by partnering stakeholders may not have been spelt out by KARI at the beginning and this could explain why there exist duplications. This is not conducive for technology adoption. With so many players giving similar services to the same farmers there is likely to be contradictions and confusion and this may disillusion farmers leading to low adoption or no adoption at all in some cases.

Management of information

Flow of information and especially effective communication is essential in ensuring that key stakeholders do not miss out on vital information (Smyk, 2000). This study investigated the efforts made by KARI to inform farmers about of ATIRI and the methods used to disseminate agricultural technologies to the small scale farmers. Both the ATIRI coordinators and the CBOs were asked to state how the information about ATIRI and technologies was conveyed to them and to also indicate the preferred methods. The study revealed that majority of the CBOs learned about ATIRI activities mainly from the extension workers and in some cases from KARI scientists. Very rarely was the information obtained from other sources e.g. media or NGOs. Table 7 is a summary of the sources of information about ATIRI as given by the respondents.

Table 7. Sources of information about ATIRI

Sources of information	Frequency	Percent
Community Based Organizations	17	14
Ministry of Agriculture extension	63	50
KARI Scientists	32	25
Colleagues	6	5
Farmer field schools	3	2
Administration	5	4
Total	126	100

Source: Research results

Satisfaction of stakeholder needs

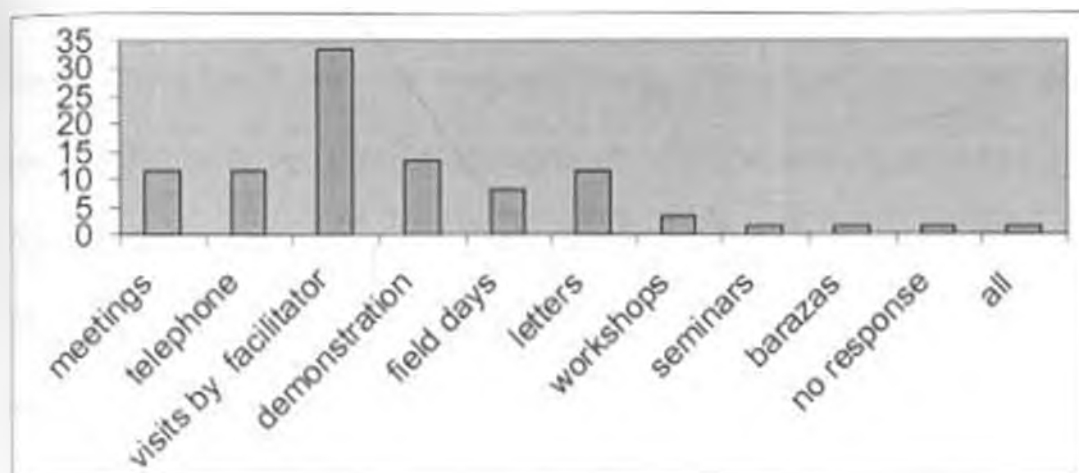
According to Jones (2001) it is important to value and give a chance to stakeholder contributions as well as strive to address their interests and concerns because any

strategy that fails to satisfy stakeholders' interests and concerns is bound to flop. In the ATIRI project KARI recognizes that it lacks the capacity and capability to do extension work and hence the need to partner with extension service providers to complement it backstopping scientists in getting the technologies to the small scale farmers. Peters (2005), argues that the biggest weakness of stakeholder management is the failure to address stakeholders needs and wants. The study sought to find out from KARI whether the needs of the stakeholders in ATIRI were known and if they were being satisfied. The assessment of stakeholder expectations from the point of view of coordinators indicates that CBOs have a wide range of interests and they are being adequately addressed.

Management of information

The study also revealed that small scale farmers prefer practical approaches of communication the reason being these methods involve personal contact and allow room for better explanation and clarification from the source of information. It was also learned from the coordinators and the CBOs that no centre used one method of communication. A combination of methods is used in communicating information to the CBOs. The most commonly used method of communication is visit by facilitators and along with this, the other main methods used are as indicated on figure 2

Figure 2: Main methods of communication in ATIRI



Source Research results

Further investigation into the preferred method of communication by CBO members revealed that in almost all the centres, farmers preferred meetings, visits by the facilitators and demonstrations. The other most popular methods are telephone and field days.

The main challenge in using these practical methods is the low capacity for the ATIRI coordinators in terms of numbers and lack of formal training in extension work. On the other hand, the extension workers who are trained to do extension are poorly facilitated in terms of transport and therefore, may not be able to cover a wide area because they either walk or use bicycles mostly.

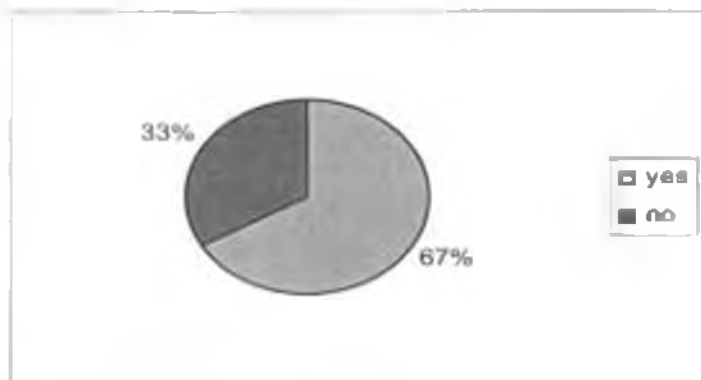
The Act of Establishment (Cap 250 of the laws of Kenya) did not give KARI mandate to do extension therefore; the institute had to rely on Ministry of Agriculture and other extension service providers to disseminate research

technologies. The respondents were asked to state whether they the Act .was an impediment to technology dissemination. The result was that 65 % of the coordinators felt it was not an impediment. This could imply that they were comfortable with the present arrangement where extension providers deal with dissemination. Only 14 % of the respondents felt there was need to review the Act. The remaining 21% of the coordinators did not respond probably because they had not read the Act or were not aware of its existence.

Top Management Support

A strategy requires the support of top management for its implementation process to succeed. ATIRI coordinators were asked whether they thought KARI's top management support for ATIRI activities was sufficient. Of the 16 coordinators interviewed 67% felt that top management support of ATIRI activities was adequate. These results are presented on figure 3.

Figure 3: KARI top management support of ATIRI activities



Source: Research results

About 33% of the coordinators felt that the support of top management was inadequate. There were complaints about inadequate financial support for groups and delay in disbursement of funds to an extent that in some cases the money was released to the CBOs long after expiry of the planned time for project activities thus, disillusioning the farmers about the ATIRI support.

Monitoring and Evaluation

Many organizations spend a lot of time developing strategies only to see them fail to produce the desired results. This happens not because the strategies are flawed but they are simply not implemented or the process of implementation fails for one reason or another (Seaman, 2002). According to Jones (2001) it is important to understand the process of change and to anticipate the disruptions that are likely to be brought about by the strategy implementation.

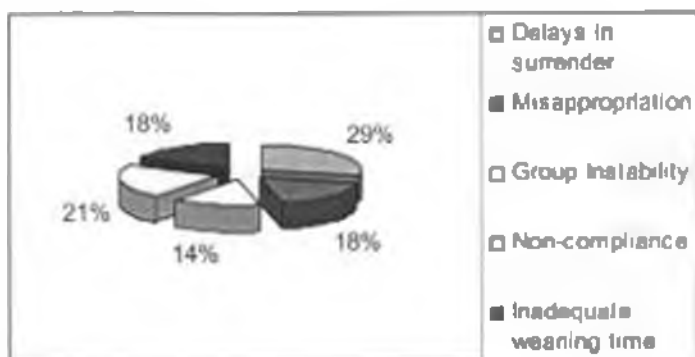
Monitoring and evaluation systems for monitoring ATIRI implementation are in place in 12 out of 16 centres. This is a good indicator of KARI's preparedness to detect and respond to stakeholder issues that may arise during the implementation of the initiative. This was also confirmed by existence of consultative meeting where progress is reviewed in every centre and the beneficiary assessment report at the end the phase I (BA, 2003). In this report challenges such as lack of proper accountability for advanced funds, vetting of groups, shortage of breeding animals and seeds were highlighted and are being addressed in phase II. In this study it was found that centres faced multiple problems during ATIRI implementation. These

ranged from mismanagement of finances, delayed release of finances, inadequate funding to group dynamic challenges.

Management of finances

The main problems faced by the ATIRI coordinators in managing the finances include delayed surrender of advanced for projects (29%), non compliance with ATIRI guidelines (21%) misappropriation of funds by the CBOs (18%), group instability (18%) and inadequate weaning time (14%). Most of farming activities in Kenya are rain fed and timely acquisition of farm inputs is a prerequisite for productivity. The government might need to review the policy on the release of funds for agriculture so that it is in line with the seasons and to consider minimizing dependence on donor funding for agricultural activities. This would ensure that KARI management gets funds on time to facilitate the coordinators with provision of regular flow of funds to the CBOs and also for enhancing project evaluation and monitoring.

Figure 4: Finance management challenges



Source: Research results

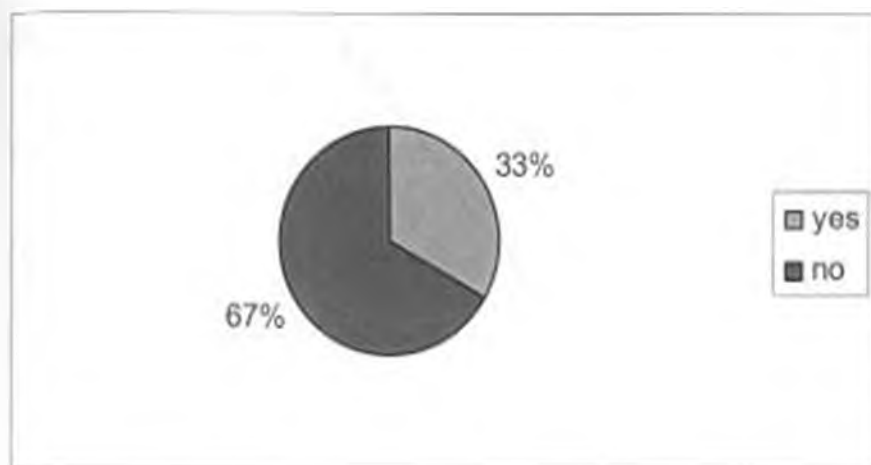
There was a general consensus from coordinators that technology up take could be improved if the financial support to the groups could be improved in terms amount and timeliness of release. They also advocated for need to strengthen joint trainings for researchers and the extension workers to improve the latter's understanding of the technologies. The reason being that KARI despite of ATIRI relies heavily on the extension workers since they have adequate capacity in terms of training for dissemination. The extension workers have adequate representation up to location level and they also have direct contact with the small scale farmers. The only major hurdle is their poor facilitation by the government since the policy of 1986 that reduced support to research and extension.

Marketing of KARI technologies

ATIRI is said to be demand oriented (ATIRI Booklet, 2001). However, it is doubtful how the demand can be achieved without making the consumers of KARI technologies especially small scale farmers aware of the available technologies.

The study sought to find out from the coordinators whether they thought KARI was doing enough to market its technologies. Of the 16 coordinators of ATIRI 67% of them were of the opinion that KARI's marketing of its technologies is adequate. However, 33% of them think that more needs to be done to create more awareness about the available technologies to the small scale farmers

Figure 5: Rating of Coordinators on the marketing of technologies by KARI



Source Research results

Some of the coordinators felt there is need for KARI to create a comprehensive data base for the available technologies and seize every opportunity to promote them. This can be done either through the media, conferences and other agricultural fora e.g. agricultural shows, farmer field days well as posting on the website.

Despite the fact that KARI coordinators rank marketing efforts by KARI quite high (67%), the reality on the ground is that most of the CBOs investigated did not get the information about ATIRI and/or available technologies through KARI officers. Most of the information was obtained from extension workers. This calls for strengthening of the linkages between KARI coordinators and extension providers for the benefit of the small scale farmers. It was also learned that CBOs do appreciate the technologies and they are convinced that continuing with the

activities introduced through ATIRI would better their lives. As a result therefore, they have been able to focus and lay out plans for sustainability beyond ATIRI.

4.2.2 Objective 2 : Perceptions of stakeholders About ATIRI

This section presents perceptions of the stakeholders both the coordinators and the CBOs on various issues in their working relationship in the implementation of ATIRI.

Identification and rating of stakeholder expectations in ATIRI

The way people perceive an activity or project to some extent promotes ownership and ensures full participation especially when they understand their stake. Though not all the CBOs responded to this question the 126 who responded were able to identify their expected gains from ATIRI. These are summarized in table 8.

Table 8: CBO expectations from ATIRI

Expectations	Frequency	Percentage
Knowledge & skills	57	42
Funding	12	11
Technology	15	13
Self sufficiency	10	9
Poverty reduction, income	6	5
Income	16	15
Total	126	100

Source Research results

The research results revealed that there is a knowledge and skills satisfaction gap among the small scale farmers. The need for knowledge, technology and skills

featured very prominently in fact, 42 % of the CBOs in the study identified these as their main expected gains from ATIRI. Further more, the need for knowledge; skills and technology combined constitute 65% of the needs and this is manifested in the low adoption of agricultural technologies. This also confirms the use of inappropriate technologies by the small scale farmers.

Table 9: Rating of stakeholder expectations

Expectation rating	Frequency	Percent
Knowledge & skills	14	42
technology	15	13
funding	29	20
Income	32	11
Self sufficiency	37	9
Poverty reduction	19	5

Source: Research results

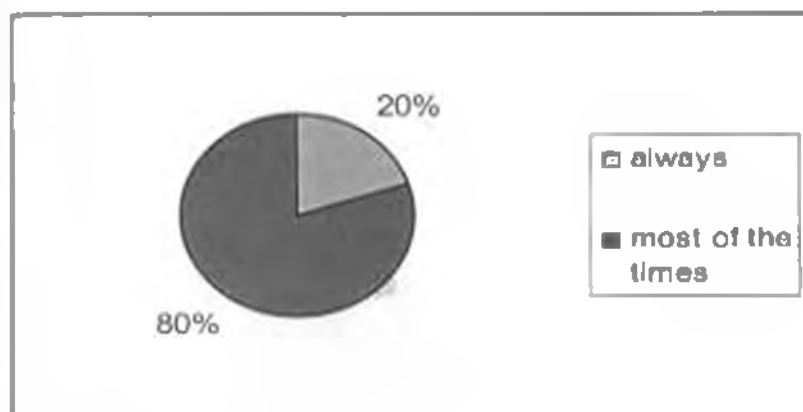
The implication of these results is that if small scale farmers were to be given knowledge, skills and the technologies were made available to them they are ready to adopt them. There is also an indication from the results that the need for funds is less critical (20%) but none the less important. The Probable explanation here could be because money can be obtained from other sources. However, it may be

necessary to link farmers to the financial institutions which led funds to groups or lobby the government to institute policies that would facilitate lending to small scale farmers without collateral and at affordable rates.

Since the institute can not manage to satisfy these needs single handedly partnering with extension service providers is considered as an important tool in dissemination and satisfaction of farmers' needs. The initiative therefore, should direct more effort to addressing the issue partnerships and may be create networks for farmers to access affordable credit so as to be able to increase their level of production. This way the agricultural technology up take by this category of farmers could be enhanced.

Knowing the interests of stakeholders and ensuring their needs are satisfied is crucial for project success. In this study the respondents were asked to state whether the proposals received from the CBOs were representative of the farmers' technology needs and what they felt about KARI's satisfaction of the stakeholder needs in ATIRI. The results on figure 6 indicate that the proposals were 80% responsive to technology needs of the farmers most of the times.

Figure 6: Rating responsiveness of proposals



Source: research results

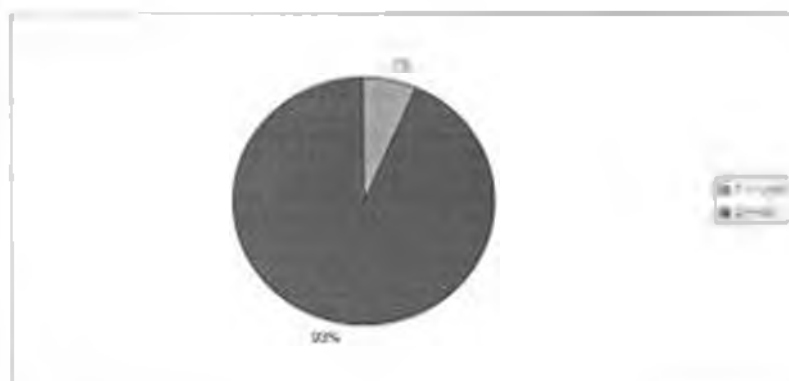
The research results also revealed that through the initiated partnerships in ATIRI the identified needs are being adequately satisfied. This has been possible because CBOs and other stakeholders are involved in the project planning through Centre Research Advisory Committees (CRACs) and continue to be involved through out the implementation stage.

Conflict of interest

According to Stokes (2005), stakeholder management involves negotiating, contracting and managing relationships in order to motivate stakeholders in ways that support delivery of organization objectives. And (Mays, 2004) says that purpose of involving stakeholders is to avoid conflict (through negotiation, mediation and collaborative learning). In ATIRI most of the CBOs were formed long before ATIRI came into being and had their own objectives. The investigation

sought to find out if there existed conflict of interest between the CBO objectives and those of ATIRI.

Figure7: Assessment of Conflict of objectives



Source: Research results

93% of the CBOs studied felt that KARI's ATIRI articulates rather than conflict the purposes for which their CBOs were formed. This is confirmed by the fact that KARI knows their expectations and through the ATIRI coordinators the institute is addressing these expectations.

Stakeholder involvement is based on realization that expertise does not lie solely with the programme professionals (GOK, 1999). Based on this realization KARI works with the extension workers in ATIRI. There is however, mixed feelings about the equipment of extension workers as regards the understanding of research technologies so as to be able to explain them to the small scale farmers. Despite the fact extension workers are many, professionally trained to do extension and also have a wider representation on the ground; they have inadequate facilitation especially in transport. About 66% of the coordinators in ATIRI think that

extension workers are ill equipped for the task and only 27% think they are better equipped.

This is a major constraint to extension work. In fact in most of the places visited the extension workers use bicycles or walk. This implies that they are only able to cover a small area at a time and therefore relying on them wholly may not yield the desired results.

The CBOs also prefer the services of the ATIRI scientists because apparently they are more conversant with the technologies and are therefore, able to explain them better. However, lack of adequate training for coordinators and back stopping scientists on extension work is a big challenge for ATIRI. On the other hand, the extension workers have the training but are not fully knowledgeable about the technologies being developed by KARI and other research institutions. This is understandable considering that ATIRI coordinators are researchers of KARI and they are adequately facilitated in terms of transportation and this makes them more available to the CBOs.

The implication here is that each of these teams have their strong points in that while the extension workers from the ministries of Agriculture and Livestock Development lack physical facilities and have limited technical know how on the research technologies, they are professionally equipped to do extension. The KARI team is the exact opposite they are articulate on technologies but lack professional knowledge on extension. So, for the sake of benefiting the small scale farmers

closer collaboration between these two teams will need to be enhanced. May be improvement on facilitation of the extension workers from the ministries of Agriculture and Livestock Development, combined with the ATIRI coordinators effort could boost better dissemination of agricultural technologies and hence, up scale adoption by the small scale farmers.

Most of the CBOs were of the opinion that ATIRI services are better than those offered the extension providers in that the coordinators and the back stopping scientists are more versed with the technologies. They are also able to explain them better to farmers. Another plus for ATIRI is the provision for start up support in form of finances, seeds or breeds. The investigation also revealed that most of the small scale farmers are not affiliated to community based organizations and therefore may not benefit from ATIRI directly.

However, since ATIRI activities are spread in all regions in Kenya, it makes the findings of the study on the feelings of the CBOs about ATIRI representative. The ATIRI coordinators and the CBOs rated the initiative performance as good. The coordinators are satisfied with the positive response of the small scale farmers in adoption of the technologies explained to them.

Challenges in the Implementation of ATIRI

The investigator also wanted to find out from the coordinators and the CBOs the type of problems experienced during the implementation of ATIRI. From the

responses received, 26.79% of the respondents did not experience any difficulties. However, the result indicate 73.21 % did experience problems which is proof there are difficulties faced in the implementation of ATIRI. The major problems highlighted by both parties being late delivery of funds and insufficiency of the same.

The results summary is represented on Table 9 below. The implication of these results is that KARI has not performed very well in the disbursement of funds to the CBOs. A lot more need to be done to improve the situation before the CBOs get disillusioned as this may have a negative impact on the technology up take.

Table 10: Problems experienced during the implementation of ATIRI

Difficulties	Frequency	Percent
none	15	26.79
late delivery of grant	15	26.79
insufficient grant	6	10.71
surrender system	4	7.14
incomplete training	1	1.79
marketing of out put	1	1.79
premature weaning	6	10.71
lack of follow up	3	5.36
untimely project implementation	1	1.79
transport cost	1	1.79
poor disbursement	1	1.79
communication	2	3.57
Total	56	100

Source Research results

Sustainability of CBO activities after ATIRI

CBOs were also asked to state how they planned to sustain their activities to advance the technologies introduced to them through ATIRI. The results indicate that CBOs have plans of how they will sustain their activities after exit of ATIRI. A combination of approaches will be used and although the plans are different for various groups; in general the sustainability approaches identified by almost all CBOs are banked profits, merry go-round, investment income, working with stakeholders, up scaling activities and member contributions.

4.3 Limitations of the study

a) Records: Although the official report indicates that there were 235 CBOs involved ATIRI the situation on the ground was different. Some of the CBOs had since fallen off or had been weaned following completion of the activities of phase 1 of ATIRI. The researcher tried to overcome this problem by interviewing even the new groups that were on board and making use of ATIRI review reports.

b) Accessibility of the CBOs: In some centres there was change of coordinators and the new ones sometimes had difficulties locating the CBOs. This was time consuming and resource wasting. The distance from one CBO to the next was also an issue in terms of transport expenses.

d) Language barrier: Due to literacy levels in some area especially Coast, Marsabit and Western Kenya the researcher required employment of research

assistants to interpret the questionnaires into local languages and to facilitate the interviews. The interpretation in some cases distorted the meaning leading to confused answers. To overcome the problem direct interviews were conducted to clarify the responses obtained.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter summarizes objectives, results and offers recommendations on the way forward in technology dissemination to the small scale farmers.

Over the years there has been concern especially in KARI about the low adoption of agricultural technologies by the small scale farmers. The evaluation of the past dissemination approaches tended to concentrate on tangible aspects of the problem for example, shortage of rain, expensive credit, poor farm inputs but failed to consider the human aspect in dissemination of agricultural technologies.

ATIRI is a strategy being used by KARI in an attempt to up scale agricultural technology up take and the study aimed at finding out how the stakeholder management issues were being addressed and to sample the perceptions of stakeholders in ATIRI

5.1 Summary and Conclusions

The study was carried out to examine the stakeholder management practices in ATIRI, to identify challenges and the perceptions of community based organizations partnering with KARI in the implementation of ATIRI.

CBOs are key stakeholders in ATIRI and although they may lack power to influence project direction, they have high interest in this project and therefore, if their needs are not satisfied they could make ATIRI unsuccessful. It is advisable to take this into account and ensure that the information flow to the CBOs is factual, useful and timely.

Through ATIRI for example, KARI provides start-up support to the CBOs in form of finances, seeds, and breeding animals. However, the support is too little to make meaningful impact in agricultural productivity.

There are also other needs identified by some farmers but they are not being addressed in ATIRI. They include marketing of farm produce, need for protection from exploitation by brokers, creation of networks with financial and government institutions to facilitate farmers with access to affordable credit. Also identified was the need for value addition on farm products through establishment of cottage industries. Addressing these latent needs is crucial and would improve the farmers bargaining power in the markets, entice the need for increasing production and thereby enhancing technology adoption.

On communication majority of CBOs obtained information through extension workers. This is understandable considering that extension officers have been on the ground for along time and in close contact with the farmers. Unfortunately in the eyes of the consumers of technologies (CBOs), extension workers and other service providers appear not to be articulate on the technologies. This is a

challenge in that it raises doubt as to whether the information gets to the farmers in the way it was intended. The situation is made worse by the fact that KARI has no control over extension providers or their programmes.

The study revealed that more needs to be done to market KARI products (technologies) and unless this is done up take of technologies may not be realized because farmers cannot be expected to demand what they do not know exists. This calls for deliberate and concerted effort in creating awareness through promotions and demonstration as situations may demand.

5.2 Recommendations

1. Lack of value addition and exploitation by middle men during marketing of farm produce are some of the challenges facing small scale farmers. Basically due to the fact that individual production level is too little to enable a farmer group penetrate competitive markets and be able to sell more at better prices. Mechanisms to link these farmers to partners who can assist them in value addition and market penetration should be considered as a way forward in technology adoption.
2. There may be need to review Policy on agriculture to cater for credit accessibility by small scale farmers without requiring collateral and at affordable rates

3. There may also be need to increase government funding for research and extension so as to minimize reliance of their activities on donor funding.
4. Demand is created by unsatisfied needs. An organization cannot consider to have produced for the market unless and until the products reach the consumer. The need for agricultural knowledge, skills and technologies by the small scale farmers has not been fully addressed. Establishment of a comprehensive data base for the available technologies, promotions through demonstrations and other agricultural fora could go along way in enhancing demand.
5. On communication of technology, the extension workers who happen to be in frequent contact with farmers are not very conversant with the research technologies and so farmers prefer KARI scientists. To alleviate this problem concerted efforts may be necessary to train extension workers and other service providers on the technologies so as to ensure farmers get the information as intended.
6. ATIRI implementation process is partly being frustrated by inadequacy of funds and delays in disbursement thus making it difficult to adhere to the planned activity schedules. Policy review on sessional paper No 1 of 1986 may be necessary so as to increase support to research and extension.

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ANNEX 1: QUESTIONNAIRE

PART I: Management practices and challenges

1. How long have you been a coordinator in ATIRI
2. Was any preparation made to equip you for effective partnering in the dissemination of research technology to the small-scale farmers?
3. In ATIRI partnerships are emphasized. Who are the key partners in your centre?

stakeholder	reason

4. The choice of partners depends on the part they play in the success of a project. What would you say are the specific contributions of the key partners in the initiative?

Partners	contribution

5. A stakeholder will support an activity if it satisfies their interests. Are the interests of your partners known? (a) Yes (b) No
6. How would you rate KARI's performance in addressing stakeholder needs in ATIRI?
(a) Very good (b) Good (c) fair (d) poor
7. In your opinion does the top management provide adequate support to ATIRI activities?
If no, what is lacking?
8. Do you consider KARI's act of establishment (Chap 250) a constraint to agricultural technology up take? (a)Yes (b) No.....

If yes, do you think it should be reviewed?

9. Management of money is seen as a key determinant of strategic success. What challenges have you so far faced in the management of funds advanced to the CBOs?

.....

10 What communication methods are used in conveying information to the small-scale farmers?

.....
.....

11 It has been argued that extension workers are better equipped for dissemination of agricultural information and technology. Do you agree?

If no, give reasons.

.....
.....

12. In your opinion are the proposals presented to ATIRI for funding representative of the group members' technology needs? (a) Always (b) Most of the times..... (c) Rarely (b) Never.....

13. Do you have monitoring and evaluation systems for ATIRI? (a) Yes..... (b) No....

14. How often do you visit farmers to follow up on implementation progress?

.....

15 Do you believe KARI is doing enough to market its technologies to the small-scale farmers? (a) Yes..... (b) No.....

If not, what do should be done?

.....

16. How would you rate the performance of ATIRI so far?
(a) Very good (b) good (c) fair (d) poor

PART 2: Stakeholder (CBOs) perception of ATIRI

17. How long has your CBO been involved with ATIRI?

18. How did you learn about ATIRI?

.....

.....

19. What do you expect to gain from the partnership with ATIRI? Rank them in order of importance in the table below

Expectation	Rank

20. Do you experience any conflict between your CBO objectives and those of ATIRI?

(a) Yes (b) No

If yes, how are they resolved?

.....

.....

21. ATIRI services are similar to those of Ministry of Agriculture extension. Do you agree? (Yes),..... (No),.....

If not, what are the differences?

.....

.....

22. What difficulties do you experience in your relationship with ATIRI? Please rank them

Difficulties	Rank

23. What methods are used to convey information to your members by ATIRI?

24. Which of these communication methods do you consider effective?

25. How does ATIRI compare to other approaches?

- (a) Better (b) same (c) worse (d) Don't know

26. How do you intend to sustain the activities of the group after exit of ATIRI?

Method	Rank

ANNEX II: List of CBOs by Centre by District

Centre	CBO Name	District	No of CBOs	Sample per centre
2002				
Kiboko	Kalima women	Makueni	8	6
Kiboko	Kibwezi poultry farmers	Makueni		
Kiboko	Kwandeke women	Makueni		
Kiboko	Mulanguku sel Help	Makueni		
Kiboko	Muuwe women	Makueni		
Kiboko	Ndiuni self help	Makueni		
Kiboko	Tuanga Ukya self help	Makueni		
Kiboko	Wendo wa Kasaani women group	Makueni		
2000				
Njoro	Njuketo women group	Nakuru	48	28
Njoro	Eriithia Ndarugu water project	Nakuru		
Njoro	Ol Moran Christian Women	Laikipia		
Njoro	Survey Bore-hole water project	Laikipia		
Njoro	Nyakong'o S H G	Laikipia		
Njoro	Ihuruma women Group	Nakuru		
Njoro	Muthiga S H G	Nakuru		
Njoro	Mukndobia S H G	Laikipia		
Njoro	Githima Kihoto S II G	Laikipia		
Njoro	Mwungu Muhotetu S.H.G	Laikipia		
Njoro	Marop Women Group	Nakuru		
Njoro	Mangu biogas S II.G	Nakuru		
Njoro	Lare A I	Nakuru		
Njoro	Kirima B	Nakuru		
Njoro	Ngarua Fruit Multipurpose	Laikipia		
Njoro	Sipili Naibrom S.H.G	Naikipia		
Njoro	Kihingo farmers S H.G	Nakuru		
Njoro	Ndsindika Wazee Hukumbuka S II G	Laikipia		
2002				
Njoro	Entauwa S H G	Narok		
Njoro	Kiamiti water harvesting	Nakuru		
Njoro	Njoro farmers link S.H G	Nakuru		
Njoro	Tencho S H G	Narok		
Njoro	Mwitumbeta Women group	Nakuru		
Njoro	Namelok Development S H G	Narok		
Njoro	St. Martin Sacco Langalanga	Nakuru		
Njoro	Chesa S II G	Nakuru		
Njoro	Naretot Women group	Narok		
Njoro	Chokereria Matanya women group	Nakuru		
Njoro	Lima S.H.G	Nakuru		
Njoro	Amithi S H G	Nakuru		
Njoro	Bondeni Women group	Nakuru		
Njoro	Kio three phase S II G	Nakuru		
Njoro	Kasambara Zero grazing S H G	Nakuru		
Njoro	Sunrise S H G	Nyandarua		
Njoro	Kipipizi AIDS awareness S.II G	Nyandarua		
Njoro	Kinmathi floriculture self help	Nyandarua		
Centre	CBO Name	District	No of CBOs	Sample
Njoro	Karagoine self help (Feshau)	Nyandarua		
Njoro	Thayu self help (Karagoine)	Nakuru		

Njoro	Gichichio men's group (Shaun)	Nyandarua		
Njoro	Munchu Pyrethrum growers (Kahutha)	Nyandarua		
Njoro	Githunguri cattle dip (Matura)	Nyandarua		
Njoro	Kiboya Women Group	Nyandarua		
Njoro	Enkutoto area welfare self help	Narok		
Njoro	Pondo Millennium multipurpose	Nyandarua		
Njoro	Eka Kumi Osiingi women group	Narok		
Njoro	Mukinye self help group	Nyandarua		
Njoro	Market Systems self help	Nakuru		
Njoro	Kihoto men's group	Nyandarua		
2000				
Kakamega	TAIRO central women group	Siaya	22	12
Kakamega	YMCA Chavakali	Kakamega		
Kakamega	Lagrotech (AWA)	Kakamega		
Kakamega	Lagrotech (Eluu SHG)	Teso		
Kakamega	Lagrotech (Kemorata)	Teso		
Kakamega	Lagrotech (Nakhakina wetland)	Busia		
Kakamega	Bulindo PLAR	Busia		
Kakamega	Nomoiintetaab	Mt Elgon		
Kakamega	Amukuranut dev't Trust (ADT)	Busia		
Kakamega	Parish Dev't group (Madiany, Ndigwa)	Siaya		
2002				
Kakamega	Koyardev	Siaya		
Kakamega	Mke Mwema Women Group	Bungoma		
Kakamega	Shisende Mungo women	Kakamega		
Kakamega	Nyalgunga widows & orphans	Siaya		
Kakamega	Mumias small scale farmers	Mumias		
Kakamega	Miyuku Self Help	Lugari		
Kakamega	Jitegemee women	Siaya		
Kakamega	Emulische multipurpose	Butere/Mumias		
Kakamega	Butere-Mumias community	Mumias		
Kakamega	CREADIS (5 FFS)	Bugoma		
Kakamega	Esikhaave Women group	Vihinga		
Kakamega	Hubiballah extension	Butere/Mumias		
2000				
Kitale	Kolongolo Self Help group	Trans znia	13	7
Kitale	Upendo Women group	Maragwet		
Kitale	Kapachelo ISFM	Maragwet		
Kitale	Chemoyet women group	W Pokot		
Kitale	Sangat Women group	W Pokot		
Kitale	Sinon B. family zero grazing	Maragwet		
Kitale	Susiet women group (Kaibci,aitai, & Chebonet groups)	Keiyo		
Kitale	Chepkot Women's Group	W Pokot		
Kitale	Kermenges women group	Keiyo		
Kitale	Kuinet Agro- Farming SHG	Uasin Gishu		
Centre	CBO Name	District	No of CBOs	Sample
Kitale	Mitharu farmers group	Uasin Gishu		
Kitale	Chemichemi SHG	Uasin Gishu		
Kitale	Cherengan women group	W Pokot		
2000				
Mtwapa	Tumani II Tezo Women Group	Malindi	24	15
Mtwapa	Shukurani Women Group	Kilifi		

Mtwapa	Mpenda Kula Women Group	Malindi		
Mtwapa	Mkongo Farmers Field School	Kilifi		
Mtwapa	Mazian Farmers Field School	Kilifi		
Mtwapa	Zowerani Farmers Field School	Kilifi		
Mtwapa	Shaza Women Group	Kwale		
Mtwapa	Goshi Dairy Women Group	Malindi		
Mtwapa	Maeleano W.G (Dabaso)	Malindi		
Mtwapa	Jaribuni Women Group	Mombasa		
Mtwapa	Mkunguni S H Group	Mombasa		
Mtwapa	Soyosoyo Youth Group	Kilifi		
Mtwapa	Jirani Farmers Club	Kilifi		
Mtwapa	ACK Dabaso Youth Group	Malindi		
Mtwapa	Songa Mbele Women group	Mombasa		
Mtwapa	Asili Tamu youth group	Mombasa		
Mtwapa	Shanzu AIC Youth group	Mombasa		
Mtwapa	Ilofu Maskani	Mombasa		
2002				
Mtwapa	Deeni youth group	Mombasa		
Mtwapa	Jeza women group	Mombasa		
Mtwapa	Lamukani Women group	Mombasa		
Mtwapa	Sihu Farmers Field day	Kilifi		
Mtwapa	Lumani B Chonyi women group	Kilifi		
Mtwapa	Dribwage Women Group	Kwale		
2000				
Kisii	Bototo Women Group (PI AR)	Kisii	27	16
Kisii	CARE Kenya	Homa Bay		
Kisii	C-MAD	Migori		
Kisii	Agriculture & Environment Program	Homa Bay		
Kisii	Kabondo Youth Dev't Group	Rachuonyo		
Kisii	Rionwando Women Group (Maruni Division DALEO)	Kisii		
Kisii	Ndhiwa Groundnut seed producer S H G			
Kisii	Aroma W.G (DALEO Nyando District)	Nyandi		
Kisii	Rikenye Utafiti youth Group	Nyamira		
Kisii	Arduru Suku Women Group	Rachuonyo		
Kisii	DALEO,Transmara	Transmara		
Kisii	Gera W.G (DALEO Mbita)	Suba		
Kisii	Siongori Community Dev. Org	Bomet		
Kisii	Bokuberia S.H.G	Kisii		
Kisii	Nyamware central Zero grazing Group	Gucha		
Kisii	Kendu Muslim pekke women group	Homa bay		
Kisii	Kobwana S H G (DALEO Kobwana Division)	Homa bay		
Centre	CBO Name	District	No of CBOs	Sample
Kisii	Gucha Wakulima Horticulture	Gucha		
Kisii	Odindo W.G	Rachuonyo		
Kisii	Riakarongo Women group	Kisii		
Kisii	Rambele Farmers Group	Rachuonyo		
Kisii	Awach Christian Horticultural W.G	Rachuonyo		
2002				
Kisii	Egeni Good samaritan	Kisii		
Kisii	Umoja S.H.G	Rachuonyo		
Kisii	Gelete self help group	Kisii		
Kisii	Paemic Farmers Field School	Gucha		

Kisii 2001	Katili Women Group	Rachuonyo		
Kiboa	Agege Youth Group	Bondo	10	6
Kiboa	Nyakaumbi S.H.G	Bondo		
Kiboa	Kakeyo women group	Nyando		
Kiboa	Kwaja Women Group	Kisumu		
Kiboa	Kinyuloka W G	Kisumu		
Kiboa	Kadenyo Women Group	Bondo		
Kiboa	Seme Farmers Group	Kisumu		
Kiboa	Kid Farm Development Group	Bondo		
Kiboa	Kouma S.H.	Kisumu		
Kiboa 2000	Dola urban Ardeaconry women	Kisumu		
Embu	Karinga potato seed growers	Maragwa	17	12
Embu	Manyatta Dairy goats	Embu		
Embu	Manyatta 24 more group	Embu		
Embu	ITDG	Tharaka		
Embu	Farm Africa	Meru South		
Embu	Kavuni potato seed growers	Embu		
Embu	Tuendeleo women group	Mbeere		
Embu	Kamurugu Agricultural Dev't (Gacegethuni, Karauacari Mwereri)	Mbeere		
2002				
Embu	Bonyange S H G	Meru North		
Embu	Juhudi water tank group	Nyeri		
Embu	Wendani women group	Meru central		
Embu	Family care community Dev't	Kirinyaga		
Embu	K. kingi Dairy farmers S H G	Embu		
Embu	Mugeni S.H.G	Meru south		
Embu	Mwitethia S H G	Embu		
Embu	Shalem Community Educators(Umbrella)	Meru central		
Embu	Nihaguta S.H.G	Meru central		
2001				
NARI	Kangemi United Self Help Group	Machakos	5	3
NARI	Jitegenice S H G	Nyandarua		
NARI	Mugurwe wa Kathaga S.H.G	Murang'a		
NARI	Karigumi Organic Farming Group	Maragwa		
Centre	CBO Name	District	No of CBOs	Sample
NARI 2001	Makandu S H G	Kirinyaga		
Thika	Nyukio Ndiriruku Women Group	Kirinyaga	14	9
Thika	Kiongaru youth S H G	Kirinyaga		
Thika	Muringuri S H G	Nyeri		
Thika	Mukangu Bio-banana S.H.G	Murang'a		
Thika	Kiriga Horticulture S.H.G (KHOPA)	Murang'a		
Thika	Ruthiru-ini Women S H G	Kiambu		
Thika	Nyumba nini ya red soil S.H.G	Kirinyaga		
Thika	Mbari ya mboce S H G	Maragwa		
Thika	Kaburu Horticultural Co-op society	Nyeri		
Thika	Murguatha Women S.H.G	Kirinyaga		
Thika	Honey bird S H G	Murang'a		
Thika	Victory S H G	Thika		

Thika	Kothimu Women S.H.G	Thika		
Thika	Kwaheri ya Kuonana S H G	Thika		
2000				
Narvasha	ARAMAT - Mosiro	Narok	6	4
Narvasha	SWOM Samburu	Samburu		
Narvasha	CWA -Miguta	Kiambu		
2002				
Narvasha	Bahati farm (Njabini)	Nyandarua		
Narvasha	Kunyoto Women S.H.G	Nakuru		
Narvasha	Nyachifa S.H.G	Nyandarua		
2001				
Katumann	Mwala Youth Teams Initiative	Machakos	16	12
Katumann	Kauti Women group	Machakos		
Katumann	Ngangani Redeemed Gospel Church	Machakos		
Katumann	Ukamba Christian Community services	Machakos		
Katumann	Mboa Muthetheni Dev S.H.G	Machakos		
Katumann	Katangi Jua Kali Association	Machakos		
Katumann	Kaathi-Mbembani farmers Association	Machakos		
Katumann	Kyeni Iya Fkkuru Women Group	Mwingi		
Katumann	Ter Wa Aka Women Group	Mwingi		
Katumann	Genesis (17 CBO's)	Mwingi		
Katumann	Mwandau Women Group	Mwingi		
Katumann	Kakululo Water harvesting	Mwingi		
Katumann	Syuuni Self Help Group	Makueni		
Katumann	Kamene Women Group	Kitui		
Katumann	Participatory Approach Integral Dev't Org	Kitui		
Katumann	PCEA Fwaso Zone Food Security pr	Kajiado		
2000				
Lanet	Motor Chaff cutter S.H.G	Nakuru	10	7
Lanet	Ithetero A I S.H.G	Nakuru		
Lanet	Bahati Cooperative	Nakuru		
Lanet	Kunyotoka Self Help Group	Nakuru		
Lanet	Community Based A I	Nakuru		
2002				
Centre	CBO Name	District	No of CBOs	Sample
Lanet	Arka S.H.G	Nakuru		
Lanet	Naishi	Nakuru		
Lanet	Mbaruk Honey farmers Group	Nakuru		
Lanet	Bamway S.H.G	Nakuru		
Lanet	Juhudi Women Group	Nakuru		
2001				
Muguga	Ugarita S.H.G	Kiambu	8	6
Muguga	Kalinki Saroni & Makopera W.G	Kajiado		
Muguga	Ndumo Mwhoko S.H.G	Kiambu		
Muguga	St. Monica Karanjee W.G	Kiambu		
Muguga	Kahani Dairy Goats S.H.G	Maragwa		
Muguga	Kaliku women group	Nairobi		
Muguga	Kirogo W.G	Kiambu		
Muguga	Kabuku Poultry keeping & Marketing	Kiambu		
2002				
Marsabit	Malakino Women group	Marsabit	5	3
Marsabit	Mwangaza Women group	Marsabit		
Marsabit	Goro Rukesa Catholic women group	Marsabit		

Marsabit	Songa Farmers Dev't Group	Marsabit		
Marsabit	Robaf Nage Women Group	Marsabit		
2002				
Igoni	Kirangari F J S	Kiambu	5	3
Tigoni	Njuni Muungano S H G	Kiambu		
Tigoni	Muguithania Poultry women	Nakuru		
Tigoni	Umoja Women group	Nakuru		
Tigoni	Young Nyairuko Progressive S H G	Nyandarua		
Total			235	143