

**AN INVESTIGATION OF THE ROLE OF COMMUNICATION IN THE MALAWI  
AGRICULTURE SECTOR WIDE APPROACH-SPECIAL PROJECT (ASWAp- SP),  
A CLOSER LOOK AT CONSERVATION AGRICULTURE: THE CASE OF  
MITUNDU EXTENSION PLANNING AREA (EPA) IN CHISAMBA VILLAGE.**

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## **Abstract**

Media scholars and practitioners hold different views and definitions of development communication and as such the importance of communication in any organization or across all stakeholders/platforms cannot be overemphasized. For a development project to be successful there is need for adequate and efficient communication. Different subject matter specialists can come up with excellent agriculture programs/projects, but these interventions cannot succeed if they have not been properly communicated to the end user (the farmer) and other key stakeholders. This paper therefore aims at investigating how communication activities are carried out under the Malawian Agriculture Development Program Support Project (ADP-SP) in the Agriculture Sector Wide Approach (ASWAp) with the purpose of providing recommendations and guidelines for the development of a communication strategy for the ASWAp. In order to achieve this, a research on how farmers receive messages on conservation agriculture was conducted in Chisamba, Malawi.

The research established that farmers receive messages through a variety of interpersonal communication which includes; communication with the extension worker, communication using the lead farmer concept/demonstration blocks, communication through village meetings and communication through field days. Farmers also receive messages through electronic media (radio), although it has not been so much utilized in Chisamba. Print communication through the use of leaflets is also used in the area. Therefore an overall conclusion of the research is that communication (whether print, electronic or interpersonal) plays a critical role in communicating agriculture messages to the farmers and as such it needs to be taken into great consideration if interventions for developing agriculture are to be successful. Placing proper feedback mechanisms between the farmers and the Ministry of Agriculture is an important element because it puts the ministry on track in terms of what the needs of the farmers are. Gender mainstreaming is another important element, which needs to be considered when communicating agriculture because both the female and male views and needs are crucial in the development of agriculture programs. Lastly, it is important for the Ministry of Agriculture to manage all stakeholders involved in agricultural communication well so as to achieve harmony and consistency in message development.

**Statement of authentication**

I hereby certify that the work presented in this master thesis is to the best of my knowledge and belief. I further certify that this thesis is my original work, except where I have cited other research works. I hereby declare that I have not submitted this material, either in whole or in part thereof, for a degree at this or any other University. Whatever flaws that might be found in this thesis are exclusively mine.

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**Date**

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## **Abbreviations and acronyms**

ADD-Agriculture Development Division

AEDC-Agriculture Extension Development Coordinator

AEDO-Agriculture Extension Development Officer

ACB-Agriculture Communication Branch

CA-Conservation agriculture

CACO-Chief Agriculture Communication Officer

ACO-Agriculture Communication Officer

ADP-SP-Agriculture Development Program-special projects

ASWAp-Agriculture Sector Wide Approach

ADP-Agriculture Development Program

DAESS-District Agriculture Extension Services System

DAES-Department of Agriculture Extension Services

DADO-District Agriculture Development Officer

DARS-Department of Agriculture Research Services

EPA-Extension Planning area

FAO-Food and Agriculture Organization

FUM-Farmers Association of Malawi

GDP-Gross Domestic Product

ICT-Information Communication Technology

MGDS-Malawi Growth and Development Strategy

MDG-Millennium development goals

NSO-National Statistics Office

NASFAM-National Smallholder Farmer's Association of Malawi

PRA-Participatory Rural Appraisal

TAMA-Tobacco Association of Malawi

UNDP-United Nations Development Program

UNESCO-United Nations Education, Scientific and Cultural Organization

USAID-United States Agency for International Development

## Contents

1.0	CHAPTER 1 .....	3
1.1	Introduction and background of study .....	3
1.1.1	How the Ministry of Agriculture communicates to farmers .....	6
1.2	Problem statement.....	8
1.3	Main objective .....	13
1.4	Specific objectives .....	13
2.0	CHAPTER 2 .....	15
2.1	Literature review.....	15
2.2.1	Role of ComDev for agriculture and rural development.....	25
2.3.1	Information Communication Technology (ICT) in agricultural communication .....	26
3.0	CHAPTER 3 .....	35
3.1	Theoretical framework.....	35
4.0	CHAPTER FOUR.....	39
4.1	Research setting, design and methodology .....	39
4.1.1	Research setting .....	39
4.1.2	Study design.....	39
4.1.3	Sample size and study population .....	40
4.1.4	Process of identification of respondents .....	41
4.1.5	Non adopters .....	43
4.1.6	Data collection tools and methods .....	43
4.1.7	Data collection procedures.....	45
4.1.8	Designing Interview Format .....	46
4.1.9	Transcribing interviews.....	46
4.1.10	Qualitative data organization .....	47
4.1.11	Qualitative data coding process .....	48
4.1.12	Qualitative data presentation and display .....	48
5.0	CHAPTER FIVE .....	49
5.1	Findings and discussions.....	49
5.1.1	Interpersonal communication on conservation agriculture .....	52
5.1.2	Non adopters in conservation farming .....	61
5.1.3	Feedback mechanism in conservation agriculture .....	62

5.1.4 Challenges and opportunities of interpersonal communication on conservation farming ....	64
1.1.5 Electronic communication .....	66
5.1.6 Print media in agricultural communication.....	68
5.1.6.3 Critical analysis of the text and content .....	72
5.1.7 Institution study of the flow of communication in the Agriculture Communications Branch (ACB) in the ASWAp.....	74
5.1.8 Information on conservation agriculture from other stakeholders .....	79
5.1.9 Gender mainstreaming when communicating conservation agriculture messages .....	82
5.1.10 Summary of chapter and recommendations .....	85
5.1.11 Recommendations based on findings and discussions.....	90
6.0 CHAPTER SIX.....	94
6.1 Conclusion .....	94
6.2 Answers to the research questions .....	96
6.2.1 To investigate how communication activities are carried out under the Agriculture Development Program Support Project (ADP-SP).....	96
6.2.2 Examine how farmers receive messages on conservation agriculture under the Agriculture Development Program Support Project (ADP-SP).....	96
6.2.3 To find out the type of communication channels that farmers are familiar with in conservation agriculture under the Agriculture Development Program Support Project (ADP-SP).....	97
6.2.4 To assess the effectiveness of the Agriculture Development Program Support Project (ADP-SP) communication channels in conservation agriculture.....	97
6.2.5 To investigate the expertise of the communicators on agricultural communication and their knowledge of conservation agriculture.....	98
6.2.6 To examine how the communication channels used in conservation agriculture has helped in the promotion of gender awareness issues.....	98
6.2.7 To provide recommendations on a communication strategy that can enhance the implementation of a communication strategy for the Agriculture Development Program Support Project (ADP-SP).....	99
7.0 Bibliography .....	101
7.1 Interviews.....	105
8.0 Appendix 1 Farmers in a focus group discussion .....	107
8.1 Appendix 2 Farmers in a focus group discussion .....	107
8.2 Appendix 3. The resource center of Chisamba village .....	108
8.3 Appendix 4. One of the farmers on his farm (practicing conservation farming) .....	108
8.4 Appendix 5 Question guide for farmers and key informants.....	109
8.5 Appendix 6 Field Work Introductory Letter (UiO).....	112

## 1.0 CHAPTER 1

### 1.1 Introduction and background of study

Malawi is a landlocked country in south eastern Africa. It has a total land area of 118,480 sq. km, of which 94,079 sq. km is land and the remainder consists of a huge freshwater lake (Info please website <http://www.infoplease.com/ipa/A0107747.html>). Agriculture is the main backbone of the economy and employs an estimated 90% of the country's nearly six-million strong labor force (CIA world fact book <https://www.cia.gov/library/publications/the-world-factbook/geos/mi.html>). According to the CIA world fact book the country's main agricultural products are, "tobacco, sugarcane, cotton, tea, corn, potatoes, cassava (tapioca), sorghum, pulses, groundnuts, Macadamia nuts; cattle, goats" (CIA world fact book <https://www.cia.gov/library/publications/the-world-factbook/geos/mi.html>). Gross domestic product (GDP) per capita was \$882.67 (Global finance <http://www.gfmag.com/tools/global-database/economic-data/11934-richest-poorest-countries.html#axzz2RlcrjRNd>) in 2012 and real growth rate was at 4.3% (CIA world fact book <https://www.cia.gov/library/publications/the-world-factbook/geos/mi.html>). Apart from the economy, agriculture plays a key role in the country's social, environmental and political spheres.

Malawi has been through and continues to go through some major changes in its approach to agriculture extension service delivery since the introduction of multiparty democracy in 1994. Malawi became a British Central African Protectorate in 1889, it later changed its name to Nyasaland in 1907 and it became fully independent in 1964. Since this time its economy has always been agricultural based. This is why when Malawi became independent in 1964 the development of agriculture was government's first priority. In the years after 1964 the approach to extension services was top-down where technologies and projects were simply imposed on local people who were expected to implement them. Based on my own observations as a Communication Officer in the Ministry of Agriculture and also according to a policy document developed by the Ministry of Agriculture and Food Security in the year 2000 (DAES Extension Concept – Policy Document, 2000 p.2) all major decisions in development of agriculture before 1994 were centrally made without any input from farmers.



From 1994 approaches to extension services have been participatory, pluralistic and decentralized. These approaches entail involvement of beneficiaries in all processes of implementing interventions. However, the question one might ask is how participatory are these approaches? The Ministry of Agriculture has been key to driving the country's agricultural agenda.

The ASWAp progress report of 2011 states that the Malawi Government prepared the Malawi Growth and Development Strategy (MGDS) document 2006-2011 ([http://www.psip.malawi.gov.mw/reports/docs/mgds\\_summary\(9priority\).pdf](http://www.psip.malawi.gov.mw/reports/docs/mgds_summary(9priority).pdf)) “as the nation's overarching medium term strategy for attaining development aspirations outlined in the Vision 2020” (ASWAp progress report, 2011p.4). According to (Reaching the Vision: Analysis of Possible Options, vision 2020 website, <http://www.sdn.org.mw/malawi/vision-2020/>) the Vision 2020 was a concept that resulted from a study that began in January 1996 on the development prospects of Malawi. The website (<http://www.sdn.org.mw/malawi/vision-2020/>) further states that:

The exercise culminated in the compilation of the Vision 2020 document that reflects the shared aspirations of Malawians in various sectors of the economy. The objective of the Vision 2020 was to help government, the private sector and society in general to reach consensus on national development goals, policies and strategies in order to improve development management (Reaching the Vision: Analysis of Possible Options, 2013 <http://www.sdn.org.mw/malawi/vision-2020/>).

The MGDS therefore was prepared in recognition of the need to change the future development destiny of Malawi in line with the aspirations of Vision 2020. On the other hand, the main goal of the MGDS is “to create wealth through sustainable economic growth and infrastructure development as a means of achieving poverty reduction, social development, infrastructure development and improved governance” (ASWAp progress report, 2011p.4).

The ASWAp progress report (2011p.4) discusses that “the agriculture sector in Malawi largely contributes to the component of sustainable economic growth and development. In line with the MGDS, the government of Malawi through the Ministry of Agriculture and Food Security integrated and prioritized a set of sectoral and investment policies and programs in the agriculture sector into the Agricultural Development Program (ADP) now

known as Agriculture Sector Wide Approach (ASWAp)” (ASWAp progress report, 2011p.4). The ASWAp is the umbrella policy for priority investments in the agricultural sector in Malawi. To kick start the ASWAp process, the Ministry of Agriculture and Food Security with financial support from the World Bank and the government of Norway formulated the Agriculture Development Program Support Project (ADP-SP) to prepare and build capacity and institutions for the agriculture sector in Malawi (ASWAp progress report, 2011p.4).

The ASWAp has four main key priority areas namely 1. “Food Security and Risk Management”, 2. “Sustainable Agricultural and Land Management”, 3. “Institutional Strengthening and Capacity Building”, and 4. “Technology Generation and Dissemination” (ASWAp Policy, 2010 p.xi). Under the Sustainable Agricultural and Land Management, the strategy focuses on “sustainable land and water utilization” “Emphasis is mainly on conservation farming, afforestation, protection of fragile land and catchment areas, and rehabilitation of degraded agricultural land” (ASWAp Policy, 2010 p.xii). Some of the cross cutting issues in the ASWAp are “HIV prevention and AIDS impact mitigation and gender equity and empowerment” (ASWAp Policy, 2010 p.xii). This research will mainly focus on the ASWAp key areas of Technology Generation and Dissemination and Sustainable Agricultural and Land Management. These two key areas emphasises on conservation agriculture which will properly be defined in the following paragraphs. This will be linked to the Agriculture Development Program Support Project (ADP-SP) key priority area of “strengthened information flows” (ADP-SP, project implementation manual, 2008 p.32) in order to investigate the role of communication in the project. Under the ADP-SP are so many projects that are being implemented one of them being conservation agriculture project (ADP-SP, project implementation manual, 2008). This research will specifically focus on the role of communication in the conservation agriculture project in Mitundu area.

Conservation agriculture (CA) aims to achieve sustainable and profitable agriculture and subsequently improved livelihoods of farmers through the application of the three CA principles: The first CA principle advocates for minimal soil disturbance by avoiding tilling the soil which is important for replacing minerals in the soil, reducing soil erosion and avoiding water loss within the soil. The second CA principle is permanent soil cover which allows growth of organisms within the soil structure (Agriculture and consumer protection in Agriculture, FAO website, <http://www.fao.org/ag/ca/> 2013).

In Chisamba village the soil is usually covered with maize stalks.

This growth breaks down the mulch that is left on the soil surface which will in turn produce a high organic matter level which will act as fertilizer for the soil surface. The third CA principle is crop rotations; rotating crops will provide natural protection on specified crops against diseases by not allowing insects or weeds to establish a pattern that helps to reduce problems of reduction in yields and disease infestation in the fields. (Agriculture and consumer protection in Agriculture, FAO website <http://www.fao.org/ag/ca/> 2013).

In Chisamba village such rotational crops include rotating maize with groundnuts or different varieties of beans including soy beans.

CA holds tremendous potential for all sizes of farms and agro-ecological systems, but its adoption is perhaps most urgently required by smallholder farmers, especially those facing acute labour shortages. It is a way to combine profitable agricultural production with environmental concerns and sustainability and it has been proven to work in a variety of agro ecological zones and farming systems. It is being perceived by practitioners as a valid tool for Sustainable Land Management (SLM) (Agriculture and consumer protection in Agriculture, FAO website <http://www.fao.org/ag/ca/> 2013).

### **1.1.1 How the Ministry of Agriculture communicates to farmers**

The Ministry of Agriculture in Malawi communicates its messages to the farmers through the Agriculture Communication Branch (ACB), which is in the Department of Agriculture Extension Services (DAES). Through DAES the ministry communicates using varied methods including print (leaflets, posters, magazines) and electronic (radio, cine films). These messages are produced and packaged at the department and then distributed in all the districts in Malawi for farmers use. The department has not ventured into online messaging yet because a majority of farmers in Malawi are rural based and mostly low income earners who can hardly afford a computer or a smart phone to access internet services.

This section will also as an example discuss puppet theatrical shows, which DAES commonly used between the years 1965 to 1990. The department does not use puppet shows anymore because it does not have finances to support the shows as outlined by Christopher Kamlongera (1989) in a study conducted by Braun et al (2001) below:

#### ***1.1.1.1 Puppets and agriculture mobile van (Yellow van)***

The use of puppet theatre in the then Extension Services Branch in the Ministry of Agriculture was linked to the Ministry's attempt to improve agricultural production in Malawi. Puppetry had been successfully applied by the Department of Information as a tool for propaganda in the 1964 electoral campaign, so the Extension Services Branch decided to use puppetry for agricultural as well as health care issues. Initially practiced on an experimental basis, puppet shows had become a regular part of the 'yellow van' cinema campaigns of the branch in 1984 when Christopher Kamlongera did his research on theatre for development. An impressive 4,356 puppet shows were performed all over Malawi in the year 1980, with an average audience size of 76 people. Special personnel were recruited and trained to work in this area. Today the puppet shows seem to have ceased at least in the Lilongwe (Malawi's capital city) area, due to problems concerning the maintenance of the vehicles and lack of funding (Kamlongera, 1989:110-123 in Braun et al 2001 p74).

Three basic characters were used in the puppet shows: a farmer, his wife and an agricultural extension officer. The preparation work was done in different parts of the Extension Services Branch: the production of the hand puppets by a person especially employed for puppet making, the selection of popular music in the radio section, the preparation of the messages by an editorial board composed both of people qualified in agriculture and communication, the creation of a dramatic script based on a simple storyline in the radio section, and the final recording, using the voices of actors. Out in the communities, the performances were announced by loudspeaker music and introduced by the local extension worker. The stage was the back of a land rover, where the puppet operator moved the puppets, accompanied by the recorded dialogue. After the performance the extension worker summarized the message and was ready to answer questions from the audience. The puppet show was performed during the

day, followed by film shows at night time. The puppet shows of the Extension Services Branch were reported to have been quite popular and effective. (Kamlongera, 1989:120-123 in Braun et al 2001 p 75).

The “yellow van” communication method as established by Kamlongera (1989) in Braun et al (2001) was undoubtedly an effective way of delivering agriculture messages in the period between 1965- 1990. Basing on Kamlongera (1989 p110-123’s in Braun et al 2001 p 75) statistics, it proves that the shows were popular and farmers used to learn a lot from them. Since then DAES has never been able to fully use this method anymore due to several challenges but chief among them being lack of funding and maintenance of the vehicles. In recent years the department has occasionally employed the use of the “yellow van” but only to announce a specific agricultural message. On these occasions the vans drive around in communities delivering messages like warning farmers of an outbreak of certain pests for crops for example locusts or livestock diseases like Foot and Mouth disease for cattle. Sometimes the message could be an invitation for farmers to a field day. It can be argued that loss of full use of the mobile vans like the way they were used for puppet shows is a missed opportunity where agricultural messages could be communicated to farmers.

## **1.2 Problem statement**

Chapota (2012 p 109), states that the need for an investigation on the role of communication in the Agriculture Development Program Support Project (ADP-SP) emanates from the observed gap between knowledge and action from research-extension-farmer linkages where most of the researchers limit the communication of research results to scientific fora such as journal publications and scientific conferences other than focussing the dissemination on the farming communities. Chapota (2012 p.109) establishes that this approach limits the extent to which decision makers and key players formulate policies and projects, which eventually impact the farmers. Therefore, he argues, “the challenge of bridging the gap between generation and utilization of research information can be addressed through production of targeted agricultural knowledge, which is delivered through appropriate communication channels” (Chapota, 2012 p.109).

According to Chapota (2012 p.110-111) some of the challenges for the lack of proper communication of the Agriculture Development Program Support Project (ADP-SP) are as follows:

- a) Inadequate analysis of agricultural sector communication stakeholders and their knowledge needs: Stakeholder analysis is used to identify the interests of stakeholders in relation to the problems that the agricultural sector aims to address. With respect to agricultural knowledge management, such analysis is used to identify those with whom the agricultural sector should communicate, as well as all those who want to communicate with the sector. Stakeholder analysis also helps to identify and involve those who are expected to facilitate communication and knowledge sharing during and after completion of research and development programmes and projects
- b) Poor communicating with stakeholders: Without effective communication, key stakeholders in the agricultural sector may miss out on vital knowledge and information. Identification of the sector's knowledge products and services, past and future stakeholders and intended target audience are key factors in any communication initiative. However, perhaps the most critical factor on which effective communication depends is the identification of what is hoped to be achieved. Therefore, the Ministry of Agriculture needs to define what it wants to be communicated in terms of the ASWAp document and its priorities.
- (c) Poor identification of media and channels for communicating with different stakeholders: understanding who the target audience are, where they stand in terms of knowledge of, and interest in the agricultural sector products and services and what media they are used to, as well as clarifying the reason for communicating with them, will all help in choosing the appropriate media for them. stems: It is important to develop and establish an effective monitoring and evaluation system for ensuring that the communication materials contain relevant information that are in an appropriate and understandable language and are accessible at a suitable/appropriate time, place and cost to those with whom the agricultural sector wish to communicate. A feedback loop should form an integral part of the monitoring process to improve future communication efforts. Sometimes it is interesting to note that there are no accountability mechanisms in how information and knowledge is shared in the agricultural arena (Chapota, 2012 p.110).

(e) Limited recognition of the role of research system in scaling up: Although most available government and organization policies, strategies and programmes put a lot of emphasis on accelerating increased impact on livelihoods and economic growth, these policy thrusts are rarely turned into action mainly because of two barriers: (i) a generally low accessibility, poor distribution, and untimely dissemination of the various policy and strategy documents to agricultural sector managers and researchers and (ii) inadequate monitoring and evaluation of impact of investments in the agricultural sector programmes and projects. There is also limited linkage among researchers under Department of Agriculture Research Services (DARS) and those in the higher institutions of learning such as Bunda College of Agriculture in Malawi and the University of Malawi's Chancellor College.

(f) Inadequate communication plans for promotion of technology uptake and scaling up: although many policy and strategy documents including ASWAp recognize and put a lot of emphasis on ensuring that agricultural research results reach the farmer, most of them lack a comprehensive plan of action for managing knowledge, ensuring communication and uptake promotion and effective scaling up. Basically, the goodwill stated in policy documents has not been exploited and converted into action.

(g) Inadequate evaluation for uptake and utilization of agricultural knowledge: Most research programmes and projects are rarely evaluated for effectiveness in communicating information, in facilitating knowledge sharing, uptake and utilization. Furthermore, the terms of reference for most evaluations are often guided by annual work plans of the programmes and projects being monitored. As is often the case, the work plans rarely include communication, uptake and impact targets. Therefore, a monitoring and evaluation guided by such plans would have little basis for assessing these aspects.

(h) Inadequate budgets allocated for promotion of uptake and scaling up: As indicated above, most research and development programmes' and projects' annual plans do not include communication, promotion of uptake and impact targets because this is perceived to be the responsibility of the extension. Because of this, only a limited amount of time and budgets are allocated to project activities concerning communication, promotion of uptake and scaling up of

research results. For this reason, results from these programmes and projects are rarely packaged for different clients, and are mostly presented in the form of technical reports and papers for scientific conferences and journals (Chapota, 2012 p.111).

Chapota (2012, p.112) discusses that another challenge for lack of proper communication in the ASWAp can be linked to the Agricultural Extension Policy (2000) which has also been cited in <http://www.ifpri.org/sites/default/files/publications/ifpridp01171.pdf> on 25.04.2013. Chapota (2012, p. 112) states that in as much as extension and advisory services in Malawi has a rich history dating back to the colonial times; the current Agricultural Extension Policy launched in 2000 that calls for all farmers to be able to demand and have access to high quality extension services from those best able to deliver them through a decentralized, demand driven and pluralistic manner has also faced a number of challenges in effectively engaging the research-extension-farmer continuum. Because of the challenges that the agriculture extension policy has faced in engaging the research-extension-farmer continuum, extension is often cited as a major reason why many existing proven technologies are not widely available for uptake by farmers (Chapota, 2012 p.112). Other challenges associated with the extension system include:

Poor identification of capacity and training gaps in extension staff and agricultural advisory providers and strategies for addressing them (Chapota, 2012 p.112).

Many agriculture extension staff workers need to upgrade their studies so that they can ably deliver to the farmers.

Inadequate support to farmer and produce organizations in the context of institutional innovations; most of the famers lack information from the Ministry on how they can sell their products after harvesting (Chapota, 2012 p.112).

Because of lack of information about markets perishable produce like vegetables and fruits end up being sold at very cheap prices for fear of rotting and the farmers lose out. For none perishable produce like maize and groundnuts, though farmers can keep them longer they still fetch low prices because farmers eventually sell just to get rid of them to avoid storage costs.



Weak capacities for information, knowledge and experience sharing and exchange to support continuous learning and innovation (Chapota, 2012 p.112).

Opportunities to share agriculture information are few and far between. Individuals and institutions with knowledge that can be shared are not accorded adequate chances and relevant platforms. There is need to establish proper and effective ways of transferring expertise between farmers at all levels.

Limited harnessing and integration of indigenous and farmer knowledge into mainstream innovation and knowledge management systems (Chapota, 2012 p.112).

Agriculture knowledge management systems should never ignore indigenous farming knowledge as this forms the foundation for further innovation and technology invention. Indigenous farming knowledge has to be incorporated in agriculture as it also enhances acceptability of new and modern methods of farming. This would be true in conservation agriculture as this type of agriculture easily relates with indigenous methods of conserving the soil and protecting it for crops, for example the application of ashes into the soil to kill termites. If embraced as an acceptable practice this can be replicated in other areas.

For a project to be successful there is need for adequate and efficient communication. However, from the factors described in the discussion above it is very clear that the Agriculture Development Program Support Project (ADP-SP) has no proper guidelines of how activities are communicated within the project. The discussion also shows that the ASWAp has no clear communication path that is followed; therefore there is urgent need that communication guidelines should be developed to be used as standard guidelines for all the stakeholders across the agriculture sector. Here, the importance of communication cannot be overemphasized. Agriculture specialists can come up with excellent agriculture programs and projects, but these may not succeed because they have not been properly communicated to the farmer.

In this regard, based on the communication challenges of the ASWAp as argued by Chapota (2012) and the problems that have been identified from the Agriculture Extension Policy (2000) as cited by Chapota (2012) and have also been cited on <http://www.ifpri.org/sites/default/files/publications/ifpridp01171.pdf>, it can therefore be

concluded that there are no proper communication guidelines that are used in the Agriculture Development Program Support Project (ADP-SP). As such the present research aims at investigating how communication activities are currently being carried out under the Agriculture Development Program Support Project. Establishment of this will in turn help in providing recommendations and guidelines for the development of a communication strategy for the ASWAp.

Realizing that gender is an important component in agricultural development and that there is need for a balanced participation of both male and female farmers, this study will also look at how communication on conservation agriculture in the Agriculture Development Program Support Project (ADP-SP) has helped in promoting gender awareness as studies have shown that women are mostly side-lined when it comes to agricultural activities and yet they are the most active in the communities (Agriculture Gender Policy, 2012).

### **1.3 Main objective**

*The main objective of this study is to investigate how communication activities are carried out under the Agriculture Development Program Support Project.*

### **1.4 Specific objectives**

1. To examine how farmers receive messages on conservation agriculture under the Agriculture Development Program Support Project (ADP-SP).
2. To find out the type of communication channels that farmers are familiar with in conservation agriculture under the Agriculture Development Program Support Project (ADP-SP).
3. To assess the effectiveness of the Agriculture Development Program Support Project (ADP-SP) communication channels in conservation agriculture.
4. To investigate the expertise of the communicators on agricultural communication and their knowledge of conservation agriculture.
5. To examine how the communication channels used in conservation agriculture has helped in the promotion of gender awareness issues.

6. To provide recommendations on a communication strategy that can enhance the implementation of a communication strategy for the Agriculture Development Program Support Project (ADP-SP).

Having discussed the introduction and background, problem statement and objectives of the study; the next section reviews literature in development and agricultural communication.

## **2.0 CHAPTER 2**

### **2.1 Literature review**

Media scholars and practitioners hold different views and definitions of development communication.

Since the 1950s, a diversity of theoretical and empirical traditions has converged in the field of development communication. Such convergence has produced a rich analytical vocabulary but also conceptual confusion. The field has not experienced a unilinear evolution in which new approaches superseded and replaced previous ones. Instead, different theories and practices that originated in different disciplines have existed and have been used simultaneously (Waisbord 2001 p. 1).

Development communication can be categorized into different fields of study such as education, agricultural and health among others. The topic under study falls under agricultural communication. This section will review different studies in the development communication field including agricultural communication. The section starts off by providing a theoretical base for development communication and from this base a theory will be selected to form the basis of this research. After providing the theoretical base, empirical research on development communication and agricultural communication will be discussed. This will provide literature of some of the works which have been done in the field thereby exposing some gaps which this research attempts to address. At the end a conclusion will be provided to summarize the discussion.

#### **2.1.1 Development communication theory**

Development communication has its origins in post-war international aid programs to countries in Latin America, Asia and Africa that were struggling with poverty, illiteracy, poor health and a lack of economic, political and social infrastructures. Development communication commonly refers to the application of communication strategies and principles in the developing world. It is derived from theories of development and social change that identified the main problems of the post-war world in terms of a lack of development or progress equivalent to western countries (Waisbord 2001 p. 1).

Development theories have their roots in mid-century optimism about the prospects that large parts of the post-colonial world could eventually “catch-up” and resemble western countries. After the last remains of European empires in Africa and Asia crumbled in the 1950s and 1960s, a dominant question in policy and academic quarters was how to address the abysmal disparities between the developed and underdeveloped worlds. Development originally meant the process by which Third World societies could become more like Western developed societies as measured in terms of political system, economic growth, and educational levels (Inkeles & Smith 1974 in Waisbord 2001 p. 1).

Melkote (1991) referred in Waisbord (2001 p 2) observes that development was equated with political development, industrialization and high life expectancy. The assumption was that underdeveloped countries needed to follow the example of developed countries. Since that time, many studies have presented different meanings of development communication. Definitions portray different scientific meanings in the development field. Recent definitions explain that the main goal of development communication is to improve the quality of people’s lives and their wellbeing by improving their financial status and eradicating social inequality (Melkote 1991 p. 229 in Waisbord 2001 p. 2).

According to an article on communication for development written by the Food and Agriculture Organization (FAO), Communication for Development (ComDev) is defined as:

A social process based on dialogue using a broad range of tools and methods. ComDev is about seeking change at different levels including listening, establishing trust, sharing knowledge and skills, building policies, debating and learning for sustained and meaningful participation. It is not public relations or corporate communication (WCCD, The Rome Consensus). The ComDev process goes beyond information dissemination to facilitate active participation and stakeholder dialogue. It highlights the importance of raising awareness, the cultural dimensions of development, local knowledge, experiential learning, information sharing and the active participation of rural people and other stakeholders in decision making (FAO, 2011 p. 3).

From the discussions above, it is evident that there is no singular definition for development communication and hence it is always being modified to suit the context in which it is being applied.

Waisbord (2001 p. 2) discusses that the aim of development communication is to achieve equality and participation in societies. With a lot of theories and concepts that have emerged during the past fifty years, many studies have offered different solutions to the problem of underdevelopment which are lack of information and power inequality. The following section will discuss what has been called 'the dominant paradigm' that will be followed by a discussion on the participation theory.

### ***2.1.1.1 The dominant paradigm: Modernization theories***

Waisbord (2001 p. 2-3) discusses that “behaviour change models have been the dominant paradigm in the field of development communication”. Diverse theories explain that problems of development came about because of lack of knowledge and as such people need information, which can change their behaviour. In the beginning development communication studies were dominated by modernization theory. This theory stipulates that the main causes of development problems are related to culture of the developing countries which needed to be addressed through “economic assistance (a la the Marshall Plan in post-war Europe)” ( Waisbord, 2001 p.3).

These studies best illustrated one of modernization’s central tenets: ideas are the independent variable that explains specific outcomes. Based on this diagnosis, development communication proposed that changes in ideas would result in transformations in behaviour. The underlying premise, originated in classic sociological theories, was that there is a necessary fitness between a “modern” culture and economic and political development. The low rate of agricultural output, the high rate of fertility and mortality, or the low rates of literacy found in the underdeveloped world were explained by the persistence of traditional values and attitudes that prevented modernization. The goal was, therefore, to instil modern values and information through the transfer of media technology and the adoption of innovations and culture originated in the

developed world. The Western model of development was upheld as the model to be emulated worldwide (Waisbord 2001 p. 3).

Because the problem of underdeveloped regions was believed to be an information problem, communication was presented as the instrument that would solve it (Waisbord 2001 p. 3).

Some of the communication theories which were developed to deal with the problem of information included:

The Shannon-Weaver model of sender-receiver originally developed in engineering studies that set out to explain the transmission of information among machines. It became extremely influential in communication studies. The other was the propaganda model developed during World War II according to which the mass media had “magic bullet” effects in changing attitudes and behaviour (Waisbord 2001 p. 3).

Waisbord (2001 p. 3) discusses that from a transmission view, communication was understood as a one way process where messages were sent through media channels to receivers. As a result, mass media such as newspapers, radio, cinemas, and television were very critical in promoting modernization (Lerner 1958, Inkeles & Smith 1974 in Waisbord 2001 p. 3). Agunga (1997) referred in Waisbord (2001 p.4) states that:

Statistics produced by the United Nations Educational, Scientific and Cultural Organization (UNESCO) showing the penetration of newspapers, radio and television sets became proxy of development. Researchers found that in countries where people were more exposed to modern media there were more favourable attitudes towards modernization and development. Based on these findings, national governments and specialists agreed to champion the media as instruments for the dissemination of modern ideas that would improve agriculture, health, education, and politics. So-called “small” media such as publications, posters and leaflets were also recommended as crucial to the success of what became known as Development Support Communication, that is, the creation of the human environment necessary for a development program to succeed (Agunga 1997 in Waisbord 2001 p. 4).

Another influential theorist in development communication is Everett Rogers whose work is extensively discussed in Waisbord (2001 p. 4). Discussing Rogers Waisbord (2001 p. 4) explains that: Another theory, which became one of the most influential in modernization theories is the “diffusion of innovations” theory elaborated by Everett Rogers<sup>1</sup> (1962, 1983).

It has been said that Rogers’ model has ruled development communication for decades and became the blueprint for communication activities in development. Rogers’ intention was to understand the adoption of new behaviours. The premise was that innovations diffuse over time according to individuals’ stages. (Rogers, 1962, 1983 in Waisbord, 2001 p. 4).

Rogers (1983 p. 10) discusses that the elements that are in the diffusion of innovations theory include; innovation, communication channels, time and social system.

Rogers (1962, 1983 in Waisbord, 2001 p. 4) continues to discuss on the diffusion of innovations theory that:

Populations were divided in different groups according to their propensity to incorporate innovations and timing in actually adopting them. Rogers proposed that early adopters act as models to emulate and generate a climate of acceptance and an appetite for change, and those who are slow to adopt are laggards. This latter category was assumed to describe the vast majority of the population in the Third World (Rogers, 1962, 1983 in Waisbord, 2001 p. 4).

For Rogers, the subculture of the peasantry offered important psychological constraints on the incorporation of innovations, and consequently, development. His view on development reflected the transmission bias also found in Lerner and Schramm. According to Rogers, development communications entailed a process by which an idea is transferred from a source to a receiver with the intent to change his behaviour.

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<sup>1</sup> Rogers' book has appeared in five editions – 1962, 1971, 1983, 1995, 2003, I use the 1983 edition because this is the one that Waisbord refers to.



Usually the source wants to alter the receiver's knowledge of some idea, create or change his attitude toward the idea, or persuade him to adopt the idea as part of his regular behaviour (Rogers, 1962 in Waisbord, 2001 p. 4).

Rogers (1983, p. 20) discusses that the element of time looks at how long an individual has taken from the first time of knowing about the innovation to the time when it has been adopted or rejected. On the other hand, the element of social system looks at:

Interrelated units that are engaged in joint problem solving to accomplish a common goal (Rogers 1983, p. 24).

In this project such examples could be the Ministry of Agriculture, the Department of Agriculture Extension Services, Department of Natural resources, National Association of Smallholder Farmers in Malawi (NASFAM), the farmers themselves and all the stakeholders that take part to achieve in persuading farmers to use conservation agriculture.

By the mid-1970s Rogers' definition of communication showed important changes that partly responded to criticisms (Rogers 1983 in Waisbord, 2011 p. 5).

Rogers reviewed the dominant paradigm by realizing that the early views were regarded to be a one-way type of communication that neglected the participatory component. The theory had to incorporate other elements that not only focussed on the results of intervention but also paid attention to content as well. Development was thus recognised as a participatory process aimed at bringing social change (Rogers, 1983 in Waisbord 2011 p. 5).

Waisbord (2001 p.5-6) discusses that “in the early 1970s, modernization theory was the dominant paradigm of development communication” with the belief that the diffusion of innovations theory could help in solving problems of the developing world. From the modernization theory, the emerging paradigm: participation emerged which was meant to be an extension of the modernization theory as discussed below.

### ***2.1.1.2 The emerging paradigm: Participation***

Mefalopulos (2008 p. 6-7) discusses that from the modernization paradigm emerged another paradigm: participation approach, which focused more on people's participation. The

participatory approach mainly focuses on the cultural elements of development as opposed to the economic elements. The main idea was that development needed to change its focus by including social components, which are also in line with the Millennium Development Goals (MDGs). Sustainability and the participation of people are thus major elements in the participation theory.

According to Mefalopulos (2008 p.7)

The participation paradigm emphasises that meaningful participation cannot occur without communication. Unfortunately, too many development programs, including community-driven ones, seem to overlook this aspect and, while paying attention to participation, do not pay similar attention to communication, intended as the professional use of dialogic methods and tools to promote change. To be truly significant and meaningful, participation needs to be based on the application of genuine two-way communication principles and practices. That is why communication is increasingly considered essential in facilitating stakeholders' engagement in problem analysis and resolution. Development communication has increasingly moved toward a horizontal, "two-way" model, which favours people's active and direct interaction through consultation and dialog (Mefalopulos, 2008 p. 7).

Mefalopulos (2008 p. 7) further explains that, the reason why many projects and programs fail can be linked to the fact that they do not involve the local people during the process of making decisions. The two way type of communication is essential for achieving sustainability in development projects because it creates an atmosphere where people are able to open up and have discussions by taking up meaningful action. Mefalopulos (2008 p. 7-8) further states:

The new paradigm is also changing the way communication is conceived and applied. It shifts the emphasis from information dissemination to situation analysis, from persuasion to participation. Rather than substituting for the old model, it is broadening its scope, maintaining the key functions of informing people and promoting change, yet emphasizing the importance of using communication to involve stakeholders in the development process. Among the various definitions of development communication, the following two provide a consistent understanding of the boundaries that define this field of

study and work. The first is derived from the Development Communication Division of the World Bank (DevComm), which considers development communication as an interdisciplinary field based on empirical research that helps to build consensus while it facilitates the sharing of knowledge to achieve positive change in development initiatives. It is not only about effective dissemination of information but also about using empirical research and two-way communication among stakeholders. It is also a key management tool that helps assess socio-political risks and opportunities (Mefalopulos, 2008 p. 7-8).

It can therefore be seen that modernization and participatory theories of communication are linked in such a way that both theories want to bring about change in people's lives through meaningful communication.

Waisbord (2001 p. 28) discusses that "since the 1950s, the meaning of development communication has changed". This is because there have been a lot of efforts in the field trying to define terms such as "development," "modernization" and "Third World" which dominated the academia debates in the 1950s. Since this time, new concepts of defining development communication have developed with the aim of finding a better definition to development communication, but still they have failed to replace the broader meaning of it. Waisbord (2001 p. 28) says development communication thus remains an umbrella term for research and improving people's living conditions in the world.

Waisbord (2001 p. 28) continues to explain further that the lack of a common definition in defining "development" and "communication" is because the field incorporates different fields of study as well as theories. Because of a lack of a better defining term of development communication, it has seen different terms such as "empowerment," "advocacy engagement of communities" and "collective community action" being coined.

The fact that there are different terms in the field all trying to define development communication does not necessarily mean that the new terms mean something totally different but rather they aim at explaining the broader meaning of the term development communication which is a contested notion indeed as already stipulated earlier on in the chapter.

The introduction of different communication development theories that started from the beginning of this chapter and the discussion that ensued about how the theories look at development communication in terms of definition and substance has helped this research to determine which theory best suits its goals. Everett Rogers' theory of diffusion of innovations provides a good basis for and is best suited to the goals set for researching *an investigation of the role of communication in the Malawi Agriculture Sector Wide Approach-Special Project (ASWAp- sp), a closer look at Conservation Agriculture: the case of Mitundu Extension Planning Area (EPA) in Chisamba village*. This research falls under the development communication field of study hence it is being inspired by Rogers' diffusion of innovations theory.

Having identified the theory in development communication to base this study on, the next section looks at the empirical literature reviews on communication development. This will include reviewing different research that has been carried out in the field of development communication as well as in agricultural communication with a particular reference to Malawi so as to establish what has already been done on the ground and where the gaps are to help in locating this study.

To kick start the discussion a book by Paolo Mefalopulos and Chris Kamlongera (2004) called *Participatory Communication Strategy Design Handbook* will be reviewed. Though the book does not directly deal with agricultural communication, it gives some guidelines in the implementation of development communication projects. The handbook also gives guidelines on how to come up with a communication strategy which is supposed to be done in a participatory manner together with the targeted audience in order to identify and solve their problems (Kamlongera & Mefalopolus 2004 p.1).

Kamlongera and Mefalopolus (2004 p.1) discuss that the handbook focuses on how one can come up with a good communication strategy design for development communication projects. This is achieved by outlining steps for message theme creation for a project that one might be interested in. The book does not focus too much on the technicalities of production but rather on how to achieve effective communication with the use of different communication media. The steps outlined in the book have been successfully applied in various development projects such as agriculture, health, education and poverty alleviation.

It can therefore be concluded that the book was written based on the principles of development communication because it outlines the steps to follow when developing a communication strategy with the help of the people, in order to address their needs which are identified by the people themselves (Kamlongera & Mefalopolus, 2004 p.1). This is a very important element in the participation paradigm of development communication. The component of participation is very significant in every project implementation cycle and it needs to be taken in to great consideration if positive results are to be achieved because the local people have a lot to contribute to the project with their indigenous knowledge, which might not be known to the project developers. This element of participation has therefore been borrowed in the current research under study where the farmers were involved in the interviews by asking them what kind of communication messages in conservation agriculture best works for them.

The next section looks at the role of communication for agriculture and rural development. Agriculture and rural development are interrelated as the success of one directly affects the development of the other. For instance if agriculture is well developed in the rural areas farmers yield more produce with high quality which would in turn fetch top dollar at the market. Farmers who are economically independent will build good houses, feed their family well and stay healthy. The prosperity of these farmers will translate into development of their areas since they will not waste time worrying about basic things like where to find the next meal. In the same vain if a rural area is well developed it means it will have necessary and functioning infrastructures like good roads, markets, health facilities, schools and recreation centers. This means farmers in this area will have easy access to markets and use the income to buy inputs like pesticides and also invest in modern agricultural methods. Because they are healthy they will be able to work in their farms and the availability of education will ensure that they are literate enough to understand development communication messages. Understanding the role of communication in agriculture and rural development and the interrelatedness of the two is important because it emphasizes the relevance of this research.

### **2.2.1 Role of ComDev for agriculture and rural development**

For communication processes in development to be continuous and effective, it is imperative to conceptualize *sustainable communication for a sustainable development* (Gumucio, 2006 in FAO, 2011 p. 16).

Communication for development theory and practice have been changing over the time in line with the evolution of development approaches and trends and the need for effective applications of communication methods to new issues and priorities (FAO, 2011 p. 16).

A FAO document (2011 p. 16) discusses that by the end of the 1980s the participatory paradigm featured highly in the field of development communication. Development communication was believed to be a tool that fosters participatory methods and the sharing of information and knowledge, which is aimed at changing the attitude and practice of stakeholders. Development communication thus is about discussions, involvement of the people and the “sharing of knowledge and information”. It responds to three main functions in agriculture rural development (FAO, 2011 p. 16):

- a) Facilitating participation: giving a voice to different stakeholders to engage in the decision-making process.
- b) Making information understandable and meaningful. It includes explaining and conveying information for the purpose of training, exchange of experience, and sharing of know-how and technology.
- c) Fostering policy acceptance: enacting and promoting policies, especially when these bring new opportunities for rural people to access services and resources (FAO, 2011 p. 16)

The FAO document (2011 p. 16) further explains that communication is a process, which is meant to encourage the interaction of people. Some of the roles of development communication in agriculture are; making sure that information is equally distributed especially amongst those who cannot easily access it; encourage a two way type of communication in agriculture projects; promote equity which influences good policy making decisions, promote behavioural change and offer solutions for conflict resolution.

### **2.3.1 Information Communication Technology (ICT) in agricultural communication**

Information Communication Technology (ICT) is fast growing in Africa and it is now being incorporated into the agriculture sector so that ways of communicating to the farmers can be improved and made easy. May et al (2007) discusses how ICT can be used to enhance communication to farmers for the Sub Saharan Africa region, which geographically covers Malawi, the country in which this research took place.

Information Communication Technology (ICT) has had an impact on agriculture in Sub-Saharan Africa. Dzidonu (2002) in May et al (2007 p. 1) discusses that:

[...] in an era of globalization accompanied by rapid technology change, a country's competitiveness and relevance in the global economy is increasingly determined by its capacity to effectively use information for design, production and marketing. (Dzidonu, 2002 in May et al, 2007 p. 1).

This cannot be over emphasized. Globalization is moving at a fast pace and as such changes need to be adopted across all the sectors in development and the agriculture sector is no exception.

The main aim of the paper written by May et al (2007p.1) was to find out how ICT impacts development in the agricultural sector in Sub-Saharan Africa. "For policy makers who must prioritize the allocation of public resources, the following questions were of concern":

- i) What is the critical level of investment in ICT to optimize impact in the agricultural sector?
- ii) What is the role of public investments to ensure optimum application of ICT in the agricultural sector and agrarian economy more broadly? and
- iii) How can those actors in the sector who would be disadvantaged be compensated, given the distributional implications of the use of ICT? (May et al, 2007 p. 1).

These issues are particularly relevant in Sub-Saharan Africa in which the uptake of mobile telephony and the attendant investment in ICT has been the most rapid in the world since 2000 (Coyle 2005: 3; MIT, 2007 in May et al, 2007 p. 1).

This is also true with the Malawian scenario as there has been an increase in the use of mobile telephones as well as ICT since 2000.

As a result of this, states May et al (2007) that:

The number of mobile subscribers in Sub-Saharan Africa had already exceeded the number fixed lines by 2001. To begin to answer the questions that arise from this spectacular growth, and the broader issue of ICT's impact on the agriculture sector in Sub-Saharan Africa, the paper used secondary information to give an overview of applications of ICT for economic change in the agricultural sector, as well as for the socio-economic transformation of the wider agrarian economy. Its objective in doing this was to identify the elements of an appropriate framework for assessing the impact of ICT on agricultural development, transformation, and employment generation. (May et al, 2007 p. 1).

May et al (2007) mentions the positive results of ICT in South America where farmers who use emails every day to submit reports on irrigation programs have been successful. (May et al, 2007 p. 19). "ICT for agricultural development has a comparatively long history in South America and have been used for a wide range of developmental purposes" (May et al, 2007 p. 19). This is why positive results of the use of ICT by farmers in South America is a good example and can be emulated by Sub-Saharan Africa farmers.

In Chile an initiative using computers with internet and electronic email was established through the Food and Agriculture Organization (FAO)'s communication for development in Latin America project. The objective of the project was to conduct participatory research into the development of the internet information and communication networks. The project works with farmer organizations of small scale producers throughout the country in an effort to establish a computer-based communication system for both horizontal and vertical communication. ICT media usage for the network included the use of internet and email in order to provide farmer organization's data on crops and international crop status. This network also provided information on market timing, prices and regional, national and international market conditions. The network further provided small scale farmer's organizations with weather and technical information, technical training information, as well as



information about the various organizations that support their work. (May et al, 2007 p. 19).

It is important to note that as much as the use of ICT has shown some positive results in Chile, it still remains a challenge for Sub-Saharan Africa countries because the use of ICT is just coming in and it will take some time before it is fully adopted. In addition to that the use of internet and computers in Sub-Saharan African countries is expensive and access remains a challenge for the average person.

The paper concluded by proposing a research project that would explore the different case studies in 12 Sub-Saharan Africa countries. In addition, two studies were proposed that would help in answering the research questions that May et al. proposed in their paper. (May et al, 2007 p. 1).

Another paper selected for review is a master thesis on communicating treadle pump technology to farmers in Malawi by Shorai Nyambalo (2006). This thesis has been selected for review because it looked at how farmers receive messages on treadle pumps (a device for pumping water into crop gardens) and it is in line and relates to this research. However, there is a difference in that the study under discussion looks at how farmers receive messages on conservation agriculture. In her thesis Nyambalo (2006p.1) writes that “the government of Malawi began handing out low-tech treadle pumps, which rely on human energy to members of parliament for distribution in their constituencies, pledging to buy 300,000 treadle pumps by October 2002”. Nyambalo (2006) observes that:

According to data collected at the Ministry of Agriculture – Zomba, when a new technology comes to Malawi it is experimented first by the Ministry of Agriculture or the Department of Irrigation and after investigating its advantages it is then imparted to the farmers. This shows that the farmers do not participate in the initial decision making process, rather they are just impressed upon to adopt the new technologies. They are only invited to view the technologies during a Field Modelling Day, organized by the Agricultural Field Assistants. From the reconnaissance conducted in Lilongwe and Kasungu, it was revealed that a lot of people find it hard to use treadle pumps because of the high energy requirement of the pumps. “Thedopampuimafunanyongazambiri, imafunathupi la thanzikutiupopemadziwo” in

the local vernacular Chichewa means, “treadle pumps require so much energy, it needs an energetic body for one to be able to pump the water” (Nyambalo, 2006 p. 18).

In her thesis Nyamabalo (2006) also looked at gender issues as having an impact on irrigation crop production. “Irrigation activities are dominated by men. Female farmers who had bought or were given treadle pumps were not using them but preferred to use watering cans instead. A Mrs Nyoni in one of the agricultural radio programs said that these treadle pumps are not easy to use because they require energy. She went on to say that they work well when there are more people to help” (Nyambalo, 2006 p. 18).

What was drawn from the indicators regarding communication about treadle pump is that farmers did not fully understand the full implications of the adoption of treadle pumps or that the government never told the full story about treadle pump use in irrigation farming. Hypothetically, it can therefore be concluded that a top-down communication process was used for treadle pumps in Malawi (Nyambalo, 2006 p. 18).

Conclusion that can be drawn from the research by Nyambalo (2006) regarding development communication is that a two way participatory approach is very essential in any project implementation. The target audience needs to understand what is happening in their community so that they can be part and parcel of the development processes and be able to provide feedback which will help in improving the project ideas.

Another study on agricultural communication was conducted in 1980 by Paul Kishindo, a lecturer in the University of Malawi, Chancellor College. Even though it is an old thesis it is still a land mark text which is very relevant in agricultural communication in Malawi and as such it is suitable for reference in this study. In a PhD dissertation titled *Extension Agents in Agricultural Development: The case of Malawi* his central argument was that “extension agents participate in two distinct sets of social relations: that of the extension service, for which they work, and that of the local community, among whom they live (Kishindo, 1980 p. 30).

To persuade farmers to adopt improved farming practices; extension agents employed a number of methods such as individual contacts. In this method farmers were visited on their holdings and given advice and demonstration on the spot. According to the studies carried out, it was the most effective method of agricultural extension. Demonstration plots as one way of persuading farmers were maintained by extension agents. The plots served as an example to their clientele. This made farmers seek more information on how to improve their holdings (Kishindo, 1980 p. 30).

Kishindo (1980) also talks about group meetings as a way of influencing farmers to adopt new farming technologies. Farmers were gathered in one place where there were addressed by extension workers who would demonstrate different techniques of good agriculture practices. With this type of method, the extension workers were able to address a lot of farmers at once. (Kishindo, 1980 p. 43).

Since extension agents could not reach every farmer in the country, mass media was used. The Extension Aids Branch of the Department of Agriculture was responsible for the production and distribution of posters, leaflets and booklets and for organizing radio programmes as well as running mobile film units. From time to time, the branch produced posters illustrating certain recommended practices such as the application of fertilizer to maize. These were posted in prominent places such as market places. The problem with posters, however was that in rural communities where illiteracy was high and people could not read the captions, they were easily misinterpreted. People gave the picture a very different interpretation from the one that was intended (Kishindo, 1980 p. 54).

Kishindo (1980) therefore concluded that:

Agricultural extension agents are subject to the expectations of the extension services and those of their clientele. As members of a government department, agricultural extension agents were not only technical experts but also local level representatives of the government's ideology of agricultural development. This was true of the government extension service as it is of the project extension services, which operate within the government's policy of agricultural development. The way agricultural extension agents approach the whole problem of agricultural development reflects the government's ideology. Local notions of how agricultural development was to be

achieved and how the role of the extension agents had to be played could have variance with that of the extension services; placing the extension agents in a dilemma (Kishindo, 1980 p. 54).

In another study, Sturges and Chimseu (1996) wrote an article on “The Chain of information provision in the villages of Malawi”. The aim of their study was two-fold:

First to give useful guidance to Malawi National Library Service in meeting the information needs of village communities, and second to throw some light on the confusing messages which emerge from the published studies of information and communication in the villages. The specific objectives of the project were to examine the chain of communication between providers of information (chiefly government ministries and agencies) and the ordinary citizens in the rural communities who are the intended users of this information (Sturges & Chimseu, 1996 p. 1).

Sturges and Chimseu (1996) explain that:

This was done at three points: in the agencies, which create information packages for dissemination; amongst the intermediaries who actually do the dissemination; and with the inhabitants of the villages, whose needs the packages intended to serve. Opinion and experience was collected which reflected the communication process from the viewpoint of each participant group. By this means, strengths and deficiencies in information transfer were identified. The results were a contribution towards the understanding of an informed environment, which presents unusual degrees of challenge for both the information seeker and the information worker. What the literature and personal observation reveal about the study is that the African village has a self-contained holistic system of knowledge and beliefs (Sturges & Chimseu, 1996 p. 1).

Further the two researchers explain that:

The Ministry of Agriculture's Agricultural Communication Branch is the chief agency communicating with the rural population, and is geared to transmit research results to farmers in acceptable information packages. This chiefly means short leaflets intended to brief extension agents, but also includes publications like the magazine *Za Achikumbi* (an unpretentious illustrated collection of agriculture-related articles), and the handbook *Guide to agricultural production in Malawi*. The Branch provides the

necessary writing and editing skills and print facilities to serve this purpose. The USAID-sponsored Communication Project, 1987-1991, was explicitly designed to enable the Branch to work from field data about information needs. However, it was acknowledged that, despite this, messages were not always wholly relevant. Defects in the supply of agricultural inputs were identified as common sources of dislocation between the message and the activities it concerned (Sturges & Chimseu, 1996 p.5).

The study on “The chain of information provision in the villages of Malawi in 1996” therefore concluded:

The information providing agencies which serve rural Malawians are essentially geared up for a one-way, top-down flow of information. Not only does this mean that they have limited capacity to respond to expressed demand for information, but also that their messages lose effect from lack of timeliness, insufficient selectivity and targeting. The extension workers perceive that this hinders their work and would generally wish to participate in more effective dissemination of information from the centre and to have more scope to feed back their understanding of local needs and concerns. Despite the strains, an underlying faith in the essentials of the system of communication represented by Malawi's extension services is still intact, both amongst the extension agents and the community (Sturges & Chimseu 1996 p.12).

There is therefore, a substantial contribution that the Malawi National Library Service can make to the alleviation of the problem of information needs in the rural areas. It already has its programme for Rural Community Information Centres, which brings information in print form closer to the villagers themselves, it can also serve those villagers who cannot read, or who want information mediated by a trusted, locally-based adviser for oral delivery. What this suggests is a need for new programmes, as a complement to existing services, to assist the extension workers become more effective as disseminators of information. The desire for information materials, which they could consult to expand, supplement and update their knowledge was one expressed in a number of interviews with the extension workers. It could also be argued that it was implicit in the concerns of many of the others (Sturges & Chimseu 1996 p.12-13).

In another study, Lusizi Kambalame (2006 p. 5) analyses the communication strategy in decentralization in Malawi, how it was implemented and the impact it had on its target groups. Although the topic was not on agricultural communication per se, the study is related to development communication. The findings in the thesis emphasises on the importance and the role of a communication strategy in development projects. Kambalame (2006 p. 5) observes that in communication strategy development “there is need for consideration of the context of strategy implementation in terms of capacity of implementing institutions, the appropriation of the communication approaches and channels in relation to the cultural context of the target group. The above ensures that the communication implemented is relevant and provides for the communication needs of the target group. Such a communication strategy ought to be continual and initiate a two – way and ‘bottom – up’ communication ensuring interaction and dialogue between the message sender and receiver” (Kambalame, 2006 p. 5).

Kambalame (2006 p.10) analyzed a “Guidebook for Decentralization and Local Governance” which can be found on [http://www2.gtz.de/urbanet/pub/GTZ-Guidebook\\_on\\_Decentralisation-en.pdf](http://www2.gtz.de/urbanet/pub/GTZ-Guidebook_on_Decentralisation-en.pdf). The study as regards to the use of the guide book, according to Kambalame (2006 p.10) favoured more those that were literate while disadvantaging those who were illiterate (Kambalame, 2006 p.10).

The deduction of the discussion above therefore is that communication needs to involve people at the grass root levels, they need to be involved in the implementation of every process so that they feel part and parcel of the project cycle. In addition to that, when designing print media the literacy levels of the target audience need to be properly examined so as to avoid missing out on the intended audience.

To sum up the literature review, this section started by giving a theoretical base of development communication theory with the major theories being the dominant paradigm of modernization and the emerging participatory theories in order to give a theoretical basis for this research. The section has also discussed empirical research that has been done on development communication as well as agricultural communication. To achieve this, a book by Paolo Mefalopulos and Chris Kamlongera entitled *Participatory Communication Strategy Design Handbook* which outlines steps to follow in the implantation of a development communication project has been discussed. Some of the research works that have been

discussed include discussions of the role of communication in agricultural development which was outlined in “FAO expert consultation communication for development: meeting today’s agriculture and rural development challenges: background paper”. A paper written by May et al (2007) has also been reviewed to show the relevance of information technology in agricultural development.

As regards to agriculture communication research in Malawi, this study has discussed Shorai Nyambalo’s master thesis from the University of Malawi on *Communicating treadle pumps in Malawi, Chikwawa and Salima*, which acknowledges that communication is a very powerful tool in communicating agricultural messages to the farmers. Paul Kishindo’s PhD dissertation titled *Extension Agents in Agricultural Development: The case of Malawi* has been reviewed because it acknowledges the use of the extension workers to be a powerful means in communicating message to the farmers. In the same way, Paul Sturges and George Chimseu’s article on “The chain of information provision in the villages of Malawi” has also been reviewed because it acknowledges that there is a contribution that the Malawi National Library Service can make in dealing with information problems in the rural areas. Though not directly linked to agricultural communication the last article that has been reviewed is Lusizi Kambalame’s master thesis from the University of Malawi titled *Communicating decentralisation in Malawi: a case of Zomba District Assembly*. This study has been selected because it is related to development communication and the findings in the thesis emphasises the importance of a communication strategy in development initiatives that calls for community participation.

What can be concluded therefore from the literature review is that, devising a communication strategy is very essential in every project implementation; this is clearly evident from the different studies that have been reviewed. The literature review has provided some studies on agricultural communication in Malawi, and they reveal that there have not been any studies on the role of communication in conservation agriculture under the ASWAp in Malawi, thus emphasizing the objective and relevance of this research: to investigate how communication activities are carried out under the Agriculture Development Program Support Project.

### 3.0 CHAPTER 3

#### 3.1 Theoretical framework

This research is going to use one of the modernization theories, the diffusion of innovations theory. Some references to the participation theory will be made where applicable, but the main theoretical base for this research is the “diffusion of innovations theory”. Discussing the diffusion of innovations theory Waisbord (2001 p.4) states that:

[...] It has been said that Rogers’ model has ruled development communication for decades and became the blueprint for communication activities in development. Rogers’ intention was to understand the adoption of new behaviours. The premise was that innovations diffuse over time according to individuals’ stages. (Rogers, 1962, 1983 in Waisbord, 2001 p. 4).

Rogers (1983 p. 10) discusses that the elements that are in the diffusion of innovations theory include; innovation, communication channels, time and social system.

Everett Rogers in his book, *Diffusion of Innovation* (1983 p. 5) defined diffusion:

[...] As the process by which an innovation is communicated through certain channels over time among the members of a social system (Rogers 1983 p. 5).

He also defined innovations as:

[...] an idea, practice, or object that is perceived as new by an individual or other unit of adoption (Rogers, 1983 p. 11).

The understanding that is being constructed by Rogers’ (1983) definitions of diffusion and innovations is that diffusion of innovation is:

[...] The process by which an idea, practice or object that is perceived as new by an individual or other unit of adoption is communicated through certain channels over time among the members of a social system (Rogers 1983, p. 11)

This is a process of communication that takes time or goes through stages to reach a point where the idea is finally adopted. The elements that are in this theory are innovation, communication channels, time and social system (Rogers 1983, p. 10).



As aforementioned, an innovation is just an idea perceived to be new, that might either be adopted or rejected according to people's favorable attitude towards it (Rogers 1983, p. 11). Another element to be looked at is communication channel; "this is the means by which messages get from one individual to another or others" (Rogers 1983, p. 17). In relation to diffusion, this is the means by which one individual or organisation communicates a new idea to another or to several others. Rogers (1983, p. 17-18) discusses that there are different channels that are used in communicating messages or innovations. Mass media channel is the "mode of transmitting messages that involve a mass medium, such as radio, television" and newspapers. On these media, Bessette (2004) adds that most people tend to start a communication process by producing a video, a radio program, or a theatre play without knowing exactly what it is actually going to contribute to.

The other channel of communication used in innovations is interpersonal communication. These involve face to face communication between two or more individuals. Interpersonal communication is the most effective because it helps in persuading individuals to adopt a new idea. Individuals who are near peers would eventually influence each other to adopt a new idea (Rogers 1983, p.18). For example, adopting the technology of conservation agriculture, it would be easy to influence someone who lives in the same area and is able to see the advantages of practicing conservation agriculture. Rogers (1983, p. 20) discusses that the third element in the diffusion of innovations is time, this looks at how long an individual has taken from the first time of knowing about the innovation to the time when it has been adopted or rejected.

Rogers (1983, p. 24) discusses the social system as the last element and he defines it as:

[...] A set of interrelated units that are engaged in joint problem solving to accomplish a common goal (Rogers 1983, p. 24).

In this project such interrelated units could be the Ministry of Agriculture, the Department of Agriculture Extension Services, Department of Natural resources, Farmers Union of Malawi (FUM), Tobacco Association of Malawi (TAMA), National Association of Smallholder Farmers in Malawi (NASFAM), the farmers themselves and all the stakeholders that take part in persuading farmers to use conservation agriculture. This study therefore aims at examining how this theory of diffusion of innovations was used. This will be further discussed in the findings and discussions chapter.

Conservation agriculture is arguably not new among farmers in Malawi. It is an agricultural method that has been practiced in some parts of the country albeit on a small scale by individual smallholder farmers. Through the Agriculture Development Program Support Project (ADP-SP) conservation agriculture is reintroduced as a new technology that can enhance farm production and conserve the fertility of the soil. Though some farmers might have been familiar with the concept of conservation agriculture, the way that it is being presented to them in the project compels the farmers to perceive it as a new idea. Farmers in Malawi as represented by those in Chisamba have accepted conservation agriculture but whether they participated in the introduction of the technology is another question and it will be answered in later chapters of the study.

The diffusion of innovations concept advocates for attention to be directed at examining how an idea is communicated to those who are expected to adopt it. It is the interest of this study to look at what communication channels were used to inform farmers about conservation agriculture and how effective were these channels. This effectiveness is in both communicating the message by conceivers of the idea i.e. those who developed the Agriculture Development Program Support Project (ADP-SP) as well as getting feedback from those expected to adopt the idea i.e. farmers. The theory also addresses issues of time in terms of how long it has taken for an idea to be adopted. This study endeavours to establish the period it took for farmers in Malawi to accept conservation agriculture as a viable technology they could adopt to use in their farms.

The study has also considered other players whose involvement and participation was vital in introducing conservation agriculture to farmers as championed by the diffusion of innovations theory under social systems. These players would include, among others Ministry of Agriculture, the Department of Agriculture Extension Services, The Land Resources Department, National Association of Smallholder Farmers in Malawi (NASFAM), Farmers Union of Malawi (FUM) and Tobacco Association of Malawi (TAMA). All these players are interrelated as they deal with farmers at different levels of capacity and it is their input that resulted in coming up with the idea of conservation agriculture as the technology that Malawian farmers needed to address certain problems they might have been facing before.

It is easy to see that whether by design or default the idea of conservation agriculture in the Agriculture Development Program Support Project (ADP-SP) was inspired and influenced by the diffusion of innovations theory.

Having discussed the relationship that the diffusion of innovations theory has with this study it is worth noting that Mefalopulos (2008 p.7) emphasises the importance of people's participation in any project development cycle. He discusses that the participation paradigm emphasises that "meaningful participation cannot occur without communication" (Mefalopulos, 2008 p.7).

Unfortunately, too many development programs, including community-driven ones, seem to overlook this aspect and, while paying attention to participation, do not pay similar attention to communication, intended as the professional use of dialogic methods and tools to promote change. To be truly significant and meaningful, participation needs to be based on the application of genuine two-way communication principles and practices. That is why communication is increasingly considered essential in facilitating stakeholders' engagement in problem analysis and resolution. Development communication has increasingly moved toward a horizontal, "two-way" model, which favours people's active and direct interaction through consultation and dialog" (Mefalopulos 2008. p.7).

Participation is a very important element in the participation paradigm of development communication. This is because it is a very important component in achieving positive results in project management. This element of participation was employed in this research. Farmers were involved through interviews by asking them what kind of communication messages in conservation agriculture best works for them. In addition to this, the element of participation will be of importance when discussing and making references to feedback mechanisms of interpersonal communication with the farmers of Chisamba in the data analysis chapter where the farmers themselves need to be a part and parcel of the feedback loop. The participation element will also be of importance when discussing the involvement of other stakeholders in agriculture communication and development which helps in avoiding delivering conflicting messages to the farmers.

## **4.0 CHAPTER FOUR**

### **4.1 Research setting, design and methodology**

#### **4.1.1 Research setting**

This research was conducted in Lilongwe district in Mitundu area, Traditional Authority Chadza in Chisamba village. Chisamba village is made up of 106 farming families. Chisamba village, which is under Chiwire section is a cluster of 48 villages. It has 882 male headed households, 787 female headed households with a total population of 7007 people. Farmers are normally managed in clusters and it is these clusters that form a section. Sections are managed by an Agriculture Extension Development Officer (AEDO), who reports to the Agriculture Extension Development Coordinator (AEDC) at the Extension Planning Area (EPA) level. Chisamba village was picked randomly from a list of villages in the district, furthermore Lilongwe district and Chisamba village in particular was chosen because it is one of the districts where the Agriculture Development Program Support Project (ADP-SP) has been implemented and most farmers are practicing conservation agriculture. The researcher visited farmers in the area for this study between the months of October-November, 2012. This is the time that farmers are preparing their gardens to start sowing maize with the first rains that usually come in November. The advantage of conducting the research within these months was that farmers were able to relate the topic of conservation farming with what was happening in the gardens and as such information generation was easy. On the other hand, the in depth interviews with key informants in the Ministry of Agriculture, The Natural Resources Department and the National Smallholder Association of Malawi was conducted between the months of June-July, 2012. This is the time that I had scheduled to travel from Oslo to Malawi for data collection.

#### **4.1.2 Study design**

The study was iterative, with each stage building on the previous one. It had a qualitative design to enhance triangulation of the data. Schroder et al. (2003 p. 30) states that:

Research involving qualitative method constructs records by employing words and images in order to register and interpret the salient verbal and visual features, manifest

and latent, of communication process, and in order to categorize them into different types (Schroder et al. 2003 p. 30).

In the same way Bryman (2008 p. 50) says that:

Qualitative research is a research strategy that usually emphasizes words rather than quantification in the collection and analysis of data (Bryman 2008. p. 366).

He continues to note that there are six main stages in a qualitative research:

General research question formulation; selection of relevant site and subjects, collection of relevant data, interpretation of data, conceptual and theoretical work and lastly writing up findings and conclusions (Bryman 2008 p. 366).

The following methods were used to obtain the data: focus group discussions with the farmers who are practicing conservation agriculture, key informant and in-depth interviews. The key informants included a representative member of the stakeholder panel, a representative member of the village development committee and the village headman. Other individual in-depth interviews were conducted separately with two extension workers, the Agriculture Gender Roles Extension Support Officer, the District Agriculture Development Officer for the Lilongwe Agriculture Development Division (DADO), the Land Resources Officer as well as the Communication Officer and the Chief Communication Officer from Agriculture Communications Branch (ACB). Another in-depth interview with the Radio Officer, Mr Andrew Mahiu was conducted from the National Smallholders Farmers Association of Malawi (NASFAM). NASFAM is a non-governmental organization, which looks at the well fare of smallholder farmers in Malawi who are farming on less than one hectare of land.

#### **4.1.3 Sample size and study population**

The sample size of the study comprised 41 respondents including the farmers and subject matter specialists. The study followed the purposive method of sampling. According to Bryman (2008 p. 458) “purposive sampling is strategic and entails an attempt to establish good correspondence between research questions and sampling, meaning that the researcher samples on the basis of wanting to interview people who are relevant to the research questions”. The study population consisted of different key informants who are involved in communicating conservation agriculture messages to farmers and farmers that are practicing conservation agriculture farming. The population of farmers comprised adult men and women

(with age range of 16 to 65). The study decided to include farmers as young as 16 years old because most of these are either married or independent farmers or child headed homes that make decisions on their own about their farming activities. The study also included the same number of male and female respondents in the focus group discussions so as to see how communication helps in mainstreaming awareness of gender activities (15 men and 15 women).

#### **4.1.4 Process of identification of respondents**

The objectives of the study together with the purposive method of sampling as outlined by Bryman (2008 p. 458) was used as a guide in the process of respondent identification and it was done as follows:

##### ***4.1.4.1 To examine how farmers receive messages on conservation agriculture under the Agriculture Development Program Support Project (ADP-SP) (Institutional study)***

The respondents were the Chief Agriculture Communication Officer and the Communication Officer who are based at the Department of Extension Services. The aim of the objective above was to find out the criteria that the Ministry used in determining the communication modes of communicating to farmers on conservation agriculture. The farmers were also interviewed during the focus group discussions.

##### ***4.1.4.2 To find out the type of communication channels that farmers are familiar with in conservation agriculture under the Agriculture Development Program Support Project (ADP-SP).***

The respondents for this section were the extension workers in Mitundu. These are extension workers that deal directly with the farmers in their villages and included the Agriculture Extension Development Coordinator (AEDC) and the Agriculture Extension Development Officer (AEDO). Focus group discussions were also conducted with farmers who have either adopted or not adopted the conservation agriculture technology. In addition to that, the Radio Officer at NASFAM was also interviewed.

***4.1.4.3 To assess the effectiveness of the Agriculture Development Program Support Project (ADP-SP) communication channels in conservation agriculture.***

This data was collected from the farmers themselves as they are the ones that receive the communication on conservation agriculture and thus can assess the modes. The researcher also conducted field tests with the farmers using print messages (a leaflet on conservation agriculture), which the Department of Agriculture Communications Branch produces to help give information to the farmers on conservation agriculture. This was done so as to find out how the farmers understood the messages and their perceptions on the different communication modes.

***4.1.4.4 To examine how the communication channels have helped in the promotion of gender awareness issues.***

This data was collected from both female and male farmers through the focus group interviews so as to get the views from both parties if they are aware of gender issues. Apart from the farmers the AEDC and AEDO were also interviewed so as to find out how they mainstream gender when communicating conservation agriculture technologies. The Agriculture Gender Roles Extension Support Officer was also interviewed so as to understand the policy guidelines of mainstreaming gender when communicating agricultural messages. The Radio Officer from NASFAM was also interviewed.

***5.1.4.5 To investigate the expertise of the communicators on agricultural communication and their knowledge on conservation agriculture***

The AEDC was interviewed because these are the ones who train the AEDO once a new technology has been introduced. After being trained the AEDO goes ahead to train the farmers. The researcher thought it was necessary to know the expertise of these communicators in terms of agricultural communication because they are the ones who can either make the farmers to adopt or reject a technology. After talking to the AEDC the researcher also interviewed the AEDO to find out their expertise in agricultural

communication. This included finding out about their skills regarding agricultural technologies and the qualifications they have as communicators.

***4.1.4.6 To provide recommendations on a communication strategy that can enhance implementation of a communication strategy for the Agriculture Development Program Support Project (ADP-SP).***

Recommendations will be presented when the data is analysed and inferences drawn from the findings.

**4.1.5 Non adopters**

Non adopters of conservation farming were also interviewed. These are people that are not practicing conservation farming because they are simply not interested in the technology or they have not heard about the technology due to having never been told. The respondents emerged from the focus group discussions.

**4.1.6 Data collection tools and methods**

***4.1.6.1 In-depth interviews with semi structured questions***

The researcher used this data collection tool (In-depth interviews with semi structured questions) because it allows a researcher to get detailed explanation of people's knowledge under study. Separate in-depth interviews were conducted with the agriculture extension workers (AEDC and AEDO), the radio officer from NASFAM, the DADO of Lilongwe district, the Agriculture Gender Extension Officer from DAES, the Communication Officer from DAES and the Land Resources Officer in the Department of Land Resources using an interview guide. In-depth interviews were used because they are very useful for dealing with individuals that could not come to a common place for a group session in addition to that they also provide detailed information on individuals that could not be obtained in a focus group discussion (Patton, 1990 p. 20). The researcher decided to use semi-structured questions because according to (Bryman, 2008 p. 196)

Semi structured questions are somewhat more general in their frame of reference as opposed to the structured interviews. In addition to that the interviewer is free to



probe further and ask more questions to the interviewee basing on the replies that are being generated (Bryman, 2008 p.196).

#### ***4.1.6.2 Key informant interviews***

Key informant interviews are “individual interviews that are conducted with people who have specialized knowledge about the topic of interest” (Bernard and Ryan, 2010 p. 370). These interviews “allows the researcher to obtain an insight of how systems operate unlike conducting a focus group discussion” (Patton, 1990 p. 20). The only disadvantage with this method is that the perspectives of the respondents can be distorted and biased, thus giving an inaccurate picture of what is happening (Patton, 1990 p. 20). In this study, the researcher found it necessary to include those people that are in the forefront in message development at the Agriculture Communications Branch (ACB). These included the Chief Agriculture Communication Officer and the Communication Officer at DAES as well as the Gender Extension Roles Officer at DAES. Other key informant interviews that were conducted in the village included one member of the stakeholder panel (the stake holder panel is a committee in the village that looks into the welfare of the farmers and represent them at the district level), one representative from the village development committee and the village headman.

#### ***4.1.6.3 Focus group discussions***

Two separate focus group discussions were done. According to Bryman (2008 p. 473) “a focus group discussion is an interview with several (usually six to ten) people on a specific topic or issue” (Bryman, 2008 p. 473). The two focus group discussions conducted totalled to 30 people (15 people in each group) comprising of lead farmers, female and male farmers of ages ranging from 16-65 so as to get a broader picture of the successes and challenges that exist in the communication and implementation of the project. Initially the researcher had planned to conduct a focus group discussion with up to 10 people but this proved impossible because more people had turned up and they had travelled from far distances so, it was practically hard to bar them from participating. However, even though this was the case, it was not difficult to control the deliberation of the discussion. The researcher was interested in the way “individuals discuss certain issues as members of a group, rather than simply as individuals and also how people respond to each other’s views and build up on the views of

others” (Bryman, 2008 p. 473). The focus group sessions were recorded and later transcribed because it would be impossible for the researcher to write everything down. Some of the limitations of a focus group discussion according to Bryman (2008 p. 473) are that; “the researcher has less control over proceedings, too much data which might be difficult to analyse, the respondents might be difficult to organize as well as the problem of group effect and dominant speakers” (Bryman, 2008 p. 473).

#### ***4.1.6.4 Case Studies***

Bryman (2008 p. 55) discusses that:

Another variation of in-depth interviews is the use of case studies, which is another way to explore realities on the ground. The rationale behind the use of this method is that it provides a rich and detailed insight into complex issues that are often hard to explore using other research methods. These are simple events in individuals’ lives, which have a strong impact on them, either positive or negative. It is a data collection tool that allows the researcher to obtain detailed information from the respondents’ point of view (Bryman 2008 p. 55).

In this study it allowed the researcher to obtain detailed information on the respondents’ farming experience, perceptions and knowledge on the adoption of conservation agriculture technology. The case studies in this research emerged from the focus group discussions. Interesting topics were noted during the interviews for further investigation. There were up to a total of 20 case studies that were found. The case studies aimed at describing the success stories of conservation agriculture in the farmers’ lives. The research will discuss four case studies in the discussion and analysis chapter because these cases best describe the representative of the sample (from the 20 case studies that were noted).

#### **4.1.7 Data collection procedures**

The researcher recruited farmers through the village head of their respective village. 30 farmers were recruited in the following categories; those that are using the conservation agriculture technology, those that adopted after seeing how their friends were benefiting from the technology and those that have never used the technology before. Two focus group discussions of 30 people were conducted with each focus group comprising 8 women and 7

men. In addition to that a key informant and in-depth interviews were conducted with one member of the stakeholder panel, one representative from the village development committee and the village headman. After that, another in-depth interview, which comprised the Agriculture Extension Development Officer (AEDO) and the Agriculture Extension Development Coordinator, was conducted separately.

After conducting research at the village level the researcher also conducted in-depth interviews at district and national level with the District Agricultural Development Officer (DADO), the Land Resources officer, the Agriculture Gender Roles and Extension Support Officer, the Communication Officer, the Chief Agriculture Communication Officer and the Radio Officer from NASFAM.

#### **4.1.8 Designing Interview Format**

This research used an interview guide for conducting interviews. The interview guide used was designed following general questions as well as specific subjects related to the study. The interviewer was flexible by allowing respondents to be free when giving explanations which resulted in obtaining additional and relevant information which was useful for the study. The research adopted a lot of semi structured questions in order to solicit more information. Follow up questions were used by the interviewer which was essential for obtaining more and pertinent information relevant to the research. The researcher as much as possible encouraged the respondents not to diverge from the topic of discussion.

An interview guide is a good way of collecting interviews because it lists the questions or issues that are to be explored in the course of an interview. In addition to that, it is prepared to ensure that the same basic lines of inquiry are pursued with each person interviewed. The interview guide provides topics or subject areas within which the interviewer is free to explore, probe and ask questions that will emerge from the interview (Bryman, 2008 p. 442).

#### **4.1.9 Transcribing interviews**

This research produced 245 minutes of interviews which were not transcribed. In order to make sense of the data, transcription of the interviews had to be done. According to Bernard

and Ryan (2010 p. 49) transcription of interviews takes up a lot of time and it is a tedious process. There are various ways of transcribing interviews and in situations where the number of interviews is a lot, “a transcribing machine or computer software such as a combination of transcription hardware and software as well as voice recognition software” (Bernard and Ryan, 2010 p. 49) are usually used. Even though such technologies are used in order to make transcription easy, they are not 100 per cent accurate because in the process, some important information can still be missed out. Since this research had only 245 minutes of interviews which were not transcribed, the researcher decided to transcribe the interviews manually. This was achieved by listening to each interview and there after recording the respondents of the interviewees manually. The interviews were transcribed manually because, even if the researcher decided to use computer software machines for transcription of data, the researcher would still have had to fix mistakes manually which in the long run consumes a lot of time. Bearing the fact that there were a large number of interviews, the researcher decided that manually transcribing the interviews was the best method of interview transcription which ensured accuracy. Manually transcribing the interviews is a matter of style and preference and it is within the limits of scientific research.

#### **4.1.10 Qualitative data organization**

After doing transcription of the field interviews the data was arranged systematically so that the data is easily accessible and referenced at the coding stage. For easy identification and interpretation of themes from the data collected in this research, the researcher has adopted the cutting and sorting manipulative technique (Bernard & Ryan, 2010 p. 63). The cutting and sorting manipulative technique has been adopted in this research because it can be used in any type of qualitative research, it is less tedious and it does not require one to have any special skills in any computer programming (Bernard & Ryan, 2010 p. 63).

The cutting and sorting manipulative technique stipulates that after the initial pawing and marking of text, cutting and sorting involves identifying quotes or expressions that seem somehow important – these are called exemplars – and then arranging the quotes/expressions into piles of things that go together (Bernard & Ryan, 2010 p. 63).

The researcher found it necessary to arrange the quotes and expressions from interviewees based on the responses that were generated hence, the researcher was just required to sort out

similar quotes and expressions from interviewees into piles and giving these piles a name according to the different modes of communication channels that the farmers used as well as the answers that were generated from the interviews. These piles of the different communication channels as used by the farmers as well as the answers that were generated were adopted as 'themes' for this research.

#### **4.1.11 Qualitative data coding process**

According to Bernard and Ryan (2010 p.76) there are three kinds of codes namely; "structural codes, theme codes and memos" and in this research theme codes and memos will be used. "Theme codes show where the themes that have been identified actually occur in a text". "Memos are field notes about codes and contain running commentary as we read through texts" (Bernard and Ryan, 2010 p.76). After organizing the transcribed interviews, what followed was making sense of the data from the information which was available. This was done using a code sheet as described by Bernard & Ryan (2010 p.98). Each theme was provided with a short as well as detailed descriptive analysis. In addition to that a list of "inclusion and exclusion criteria" (Bernard & Ryan, 2010 p.98) for each theme was also identified.

#### **4.1.12 Qualitative data presentation and display**

This part of the research where presentation and findings of results are discussed is one of the most important parts of any research because the way the findings are presented, will have a big influence in the way readers provide their feedback to the research. The researcher relied on her understanding and knowledge of empirical research in organizing the data which made it possible to draw out the main findings of the research. The findings in this research are logically structured taking into consideration suggestions and recommendations. The researcher was objective in the presentation of the data by taking into account criticism.

## **5.0 CHAPTER FIVE**

### **5.1 Findings and discussions**

The findings and discussions in this chapter focus on three main thematic areas that emerged during the cutting and sorting manipulative techniques as elaborated by Bernard and Ryan (2010). These thematic areas include; interpersonal communication, electronic communication and print media as used in the ADP-SP project on communicating conservation agriculture messages to farmers. The data will also be analyzed taking into consideration the four stages of Rogers' (1983) diffusion of innovations, which are innovation, communication channels, time and social system.

The first part of the chapter will start by explaining how information flows in the Ministry of Agriculture (Department of Agriculture Extension Services) and the standing operating procedures that are carried out when communicating new technologies to the farmers so as to help the reader in understanding how certain things are done the way they are done in the department which in turn affects how communication is carried out at the grass root levels. After that, interpersonal communication will be discussed as it has been used in Chisamba. This will include a discussion on the non-adopters of conservation agriculture, the feedback mechanisms used in conservation agriculture and the challenges and opportunities of conservation agriculture. The chapter will also discuss electronic and print communication as used in Chisamba under conservation agriculture. After discussing the communication modes, the chapter will discuss in detail the flow of communication at the Agriculture Communication Department. After that, information from other stakeholders on conservation agriculture will be discussed. Gender mainstreaming in agriculture will also be discussed because one of the objectives of the study was to find out how gender is mainstreamed when communicating conservation agriculture. After all the discussions a summary of the chapter and recommendations will be provided at the end.

Below is a table of detailed thematic areas (modes of communication) that emerged in the findings starting from the most frequently used to the least used by the farmers in Chisamba that will be discussed in the chapter:-

<b>Mode of communication on conservation agriculture as used in the ADP-SP</b>	<b>Category and type of communication according to the thematic area</b>	<b>Level of usage according to the importance (in numbers)</b>
Communication with the extension worker	Interpersonal communication	Emerged as number 1
Lead farmer concept/demonstration blocks	Interpersonal communication	Emerged as number 2
Village meetings	Interpersonal communication	Emerged as number 3
Field days	Interpersonal communication	Emerged as number 4
Posters, leaflets, <i>zaachikumbe</i> (about farmers) magazine	Print communication	Emerged as number 5
Radio	Electronic communication	Emerged as number 6

Innovation which is the first step in the diffusion of innovations theory is just an idea perceived to be new, that might either be adopted or rejected according to people's favorable or unfavorable attitude towards it (Rogers, 1983 p.11). In this study the diffusion of the idea was to teach farmers about conservation farming through the established communication channels that exist in the Agriculture Communications Branch (ACB) in the Department of Agriculture Extension Services (DAES). In order to put the discussion into perspective and to understand how information flows in the Department of Extension Services so that it can then reach the farmer, the chapter will start by explaining how information flows in the Ministry of Agriculture (Department of Agriculture Extension Services) as well as the standing operating procedures that are used when communicating new technologies by the Department of Agriculture Extension Services (DAES).

In order to find out how information flows in the Ministry of Agriculture (Department of Agriculture Extension Services) and the standing operating procedures that are used when communicating new technologies to the farmers, in-depth interviews with the Communication Officer and the Chief Agriculture Communication officer in the Department

of Extension Services were conducted. A detailed account of their responses on the information flow will be discussed later on in the chapter, but the following were some of their responses;

The Communication Officer started by providing an outline of how the Ministry of Agriculture is structured. I have outlined it so that I can give the reader a clear understanding of the flow of messages in the Ministry. The Ministry of Agriculture in Malawi is divided into eight Agricultural Development Divisions (ADDs) and subdivided into Extension Planning Areas (EPAs) which are manned by an Agriculture Extension Development Coordinator (AEDC). It is further subdivided into section areas, which are manned by an Agriculture Extension Officer (AEDO). Each EPA has a local office, which controls field events. The Ministry of Agriculture developed a network which enables free flow of information to the farmer families in the villages. This is made possible through its Agriculture Communication Branch (ACB). The ACB communicates to the farmers through the following ways; interpersonal communication, newsletters, magazines and leaflets and radio broadcasts (Interview with Chief Agriculture Communication Officer, 2012).

In terms of the standing operation procedures that are followed in order to achieve the communication objectives of the Ministry, the Chief Communications Officer added that, the Ministry on the other hand, does not have a written policy on how communication of new technologies is to be done. However, there are standing operating procedures that are followed in order to achieve the objectives of the Ministry. The ACB is the central area for all communication taking place in the agriculture sector. When a technology is to be introduced, people at ACB develop a list of themes or issues that are to be communicated and they develop an understanding of the context within which the communication takes place. After the context has been clearly understood, they identify possible partners or allies for building the communication process. When the materials have been developed, ACB takes them to the communities through their extension workers, if there is need of any training, the extension workers are trained so that they can go and teach the farmers about the technology (Interview with Communication Officer, 2012).

The ADP-SP on conservation agriculture in Mitundu followed the same procedures that have been stipulated above. When the concept of conservation agriculture was developed, ACB took the concept to the communities by training the extension workers in all the different parts of the country so that they could teach the farmers about conservation agriculture.



According to the Chief Agricultural Communication Officer most farmers welcomed the technology on conservation agriculture very well. This research was interested in finding out from the farmers in Mitundu EPA how they welcomed the technology and also to assess the different ways that were used to communicate the messages on conservation agriculture.

After the ACB came up with the innovation and guidelines on conservation agriculture under the ADP-SP and trained its extension workers so that they could teach the farmers, the extension workers had to communicate to the farmers through different modes of communication channels. This leads to the second element of the innovations theory, which according to Rogers (1983, p. 17) is communication channels. The first communication channel that will be discussed in this chapter is interpersonal communication. Under interpersonal communication the methods that were mostly used to communicate messages to the farmers included; communication with the extension worker, communication using the lead farmer concept/demonstration blocks, communication through village meetings and communication through field days. After discussing interpersonal communication, electronic communication will be discussed mainly focussing on the use of radio. The last communication mode to be discussed will be print communication and use of leaflets will be the main focus.

### **5.1.1 Interpersonal communication on conservation agriculture**

During the focus group discussions with the farmers as well as key informant interviews, interpersonal communication was one of methods that is mostly used in communicating information to the farmers. This is in line with the second element of the diffusion of innovations theory, which involves the use of interpersonal communication as a communication channel mode. The use of interpersonal communication involves the use of face-to-face communication between two or more individuals (Rogers, 1983). According to Rogers (1983) interpersonal communication is one of the most effective methods of communication because it helps in persuading individuals to adopt a new idea (Rogers, 1983 p. 18). Under interpersonal communication the following communication methods were mainly used in Chisamba village to communicate conservation agriculture messages to the farmers; communication with the extension worker, communication using the lead farmer concept/demonstration blocks, communication through village meetings and communication through field days.

The following section gives an analysis of the different communication modes on conservation agriculture as used in the ADP-SP in Chisamba village.

#### ***5.1.1.1 Communication through the extension worker***

*“Tili ndi ndi mlangizi osatopa, sagona tulo, saopa tchile zimene zimatipangisa kuti tizilimbikila. Moti kwathu kuno ndife anthu odala, ndife anthu onyada, midzi ina imatisilila. Alangizi ena munthu umachita nawo mantha koma alangizi athu amatithandiza kwambiri, amatithandiza kutsatila ndondomeko inailiyonse kuyambila kuyala mapesi mpaka pobyala. Iwowa amadzipoleka kuti delali litukuke”* **meaning that we have a hard working extension worker who is willing to help the people at any time. We are very privileged people in this area; most of the surrounding areas envy us because we have such a hard working extension worker. He does this in order to bring development in our area** (Chief Chisamba, 2012).

That is the chief of Chisamba village, quoted in a focus group discussion emphasizing on the importance of the role of the extension worker to the community.

Following an interview with the District Agriculture Development Officer (DADO) of Lilongwe ADD Hastings Yotamu, he also confirmed that extension workers are mainly the ones who deliver information to farmers. He explained that after developing a work plan they sensitize their front line staff; Agriculture Extension Development Coordinators (AEDCs) and Agriculture Extension Development Officers (AEDOS) who then sensitize the lead farmers. Farmers are sensitized during sensitization meetings where different modes of communication channels such as posters, leaflets and brochures are used.

Following another interview with Mr Chagoma, the AEDC of Mitundu Extension Planning Area (EPA) explained that, his overall responsibility is to coordinate agriculture activities with the AEDO by taking agriculture activities from the district level to the EPA and from the EPA to the section level through the help of the AEDO. He also works hand-in-hand with some of the non-governmental organizations such as Total Land Care and NASFAM in the area that are concerned with agriculture development so that they can work in a harmonized manner and avoid duplication of messages, which can end up confusing the farmer. In another interview with Steven Kamwendo, the AEDC of Chisamba section, he explained that his role is to take messages from the AEDC to the section level and also to make follow ups

using the farmer demonstration plots (to be discussed in detail later on in the chapter) which are established in the village and are taken as a grocery where farmers can choose and learn the type of farming technologies that they would like to practice. From the interviews given above, it does indicate that communication through the extension worker is indeed one of the effective communication methods that are used in Chisamba village.

To prove that communication with the extension workers is one of the successful methods that are being used in the area; the farmers themselves confirmed this during the two focus group discussions that were conducted. They explained that they started practicing conservation agriculture in 2009 when the extension worker visited and told them about how the climate is changing and the importance of adopting conservation farming. The extension worker emphasized three conservation agriculture (CA) principles, which are:

Minimal soil disturbance by avoiding tilling the soil which is important for replacing minerals in the soil, reducing soil erosion and avoiding water loss within the soil. The second CA principle which was emphasised is permanent soil cover, which allows growth of organisms within the soil structure (Agriculture and consumer protection in Agriculture, FAO website <http://www.fao.org/ag/ca/> 2013).

In Chisamba village, the soil is usually covered with maize stalks.

This growth breaks down the mulch that is left on the soil surface which will in turn produce organic matter that acts as fertilizer for the soil surface. The third CA principle is crop rotation; rotating crops will provide natural protection on specified crops against diseases by not allowing insects or weeds to establish a pattern that helps to reduce problems of reduction in yields and disease infestation in the fields (Agriculture and consumer protection in Agriculture, FAO website <http://www.fao.org/ag/ca/> 2013).

In Chisamba village such rotational crops include rotating maize with groundnuts, soy beans or pigeon peas. Currently those who are practicing conservation farming are 164 in number with 90 men and 74 women. Based on the numbers of those who have adopted and are practicing conservation farming it is really showing that the farmers are able to understand the messages that their extension workers tell them and they are convinced to adopt the technology. From the analyses above, it does show that the farmers mainly get agriculture messages through the extension workers.

Having confirmed that communication through the extension worker is indeed used in Chisamba village, the study discusses the benefits of conservation farming. When the farmers were told about conservation agriculture, everyone started practicing it on their own in their farms but after one month some people started practicing it in groups. These are groups that were already pre-existing on other projects and were just facilitated with the help of the extension worker. One of the farmers explained that, the importance of staying in groups is that it is easy to share information, and tasks can be easily shared within group members. He observed that much as the extension worker is able to visit them, he cannot afford to visit every one individually because the area is too big for him. This leads to the third element of the diffusion of innovations theory, which according to Rogers (1983 p. 20) is time and it looks at how long an individual takes from the first time of knowing about the innovation to the time when it has been adopted or rejected. It can thus be seen from the findings that when the extension worker came to the village and told the farmers about conservation farming they immediately took action and in a space of one month they had already adopted the technology. It therefore did not take much time for the farmers to organize themselves and form groups on conservation farming and later on ended up adopting the technology.

When the farmers were told of conservation farming, it has been seen that they influenced each other by forming groups; this is in line with the diffusion of innovations theory of communication which says that interpersonal communication is important because it influences individuals who are near peers to eventually influence each other to adopt a new idea (Rogers, 1983 p. 18). It was easy for fellow farmers to influence each other as they live in the same area and are able to see the advantages of practicing the technology. In addition to that, conservation farming was reported to have several advantages over the other types of farming because it provides maximum soil cover which in turn provides manure, returns moisture and it is very easy for everyone to practice it including the sick and those affected with HIV/AIDS as one does not need to do much in the gardens and yet the results are rewarding. As already stipulated earlier on, HIV/AIDS mitigation is one of the cross cutting issues which has been incorporated in conservation farming as emphasized in the ASWAp.

### 5.1.1.2 Mini case studies on conservation farming and its advantages

During the focus group discussions with the farmers 20 mini cases were reported on the benefits of conservation agriculture. This research has selected four cases to be focused on. These are the cases that best represent all the 20 mini cases that were considered under the study. The four case studies that have been selected for review in this research are a representative sample of the 20 case studies that were sampled out during the focus group discussions with the farmers.

Masautso Maumbira, a 30 year old man said; *“koyamba ndinkakolola ma bag ochepea koma pano ndimakolola ma bag ochuluka. Nthaka inatheratu ndisanayambe ulimi umenewu koma pano nthaka inabwelela* meaning that **“I used to harvest very few bags of maize before I adopted this technology but now I harvest many bags of maize. Before I started practicing conservation farming the soil was not good but now it has improved because the manure helps in improving the soil texture”** (Masautso Maumbira, 2012).

Elemita Yosefe, a 35 year old woman was also quoted saying that *Ndinali onyozela ndinkalima mbewu yamakolo koma nditayamba ulimi wa mlera nthaka ndinayamba kukolola chimanga chambiri. Ulimi umenewo umatha kulima ndi zinthu zina ngati mtedza nandolo,* meaning that **“at first I used to look down upon conservation type of farming, but when I started practicing it I was able to see its benefits. This type of farming is good because you can mix it together with other crops as well such as ground nuts and pigeon peas”** ( Elemita Yosefe, 2012).

65 year old Emily Fetison... *“ulimi wakananiza wandipindulila kwambili koyamba ndinkalima ulimi wamakolo pa phanda folo folo koma nditayamba ulimi wakananiza pano ndimakolola matumba 20 pomwe koyamba ndimakolola matumba 10 okha basi”* meaning that **“I practice mixed type of farming and it has benefitted me a lot, at first I used to follow the traditional method of farming and I never used to harvest a lot of bags. Now I harvest 20 bags as opposed to the 10 bags that I used to harvest”** (Emily Fetison, 2012).

18 year old Elemita Makswel.... *“Timasata ulimi wa mtaya makasu...olo tidwale timadziwa kuti ticolola, timakolola zochuluka pano. Njala tidaipilikitsa tsopano”.*

Meaning that **“we practice conservation farming and the good thing with this type of farming is that even if we get sick and cannot work, we do not worry because we know we will still harvest a lot of maize”** (Elemita Makswel, 2012).

From these mini cases, focus group interviews and from experience as a communication officer in the Ministry of Agriculture having visited farmers in their gardens in Chisamba village it is evident that they are practicing conservation farming. It can thus be concluded that the people of Chisamba village have adopted conservation farming as a technology and they are benefiting. This in a way depicts that interpersonal communication and the use of the extension worker has proved to be working in the area.

#### ***5.1.1.3 The role of the chiefs and the village development committee in communicating conservation agriculture messages***

During the interviews that were conducted, it was noted that the extension workers normally work with the chiefs of the village and also with the help of the village development committees (VDCs). One of the members of the village development committee of Chisamba village was interviewed using the in-depth interview method and he explained that there are 20 people in the VDC, 9 women and 11 men. Some of the positions in the committee include; chairperson, vice secretary and treasurer. Their main job is to look at the development activities in the village to make sure that no one is lagging behind and to encourage each person as an individual to participate in development activities. The chairman and vice chairperson also attends meetings at the district level together with other farmers from surrounding areas so as to find out what kind of activities their village can be involved in. They meet 2 or 3 times a month depending on the kind of activities available. Some of their responsibilities involve going to get development activities at the Traditional Authority level and bringing them to the group level. In terms of challenges that they face, they explained that distance is a barrier for them to travel and arrive at the Traditional Authority on time as many of them are required to walk because they do not own bicycles. Another challenge is lack of training to build capacity and be able to carry out activities as a VDC.

The analyses above show that the VDC does have an important role in communicating messages to the farmers. However, they need training to be able to deliver so as to increase

agriculture productivity. The extension workers, mainly the AEDO and the AEDC also need to be properly trained to make sure that they understand the concepts that are to be communicated to the farmers because they are the ones that directly work with the farmers. It was noted that the extension workers need training in communication skills. When interviewed, the extension workers indicated that they have never been trained in communication and the highest qualification they hold is a diploma in general agriculture obtained from the Natural Resources College (an agricultural college in Malawi that offers diplomas (<http://www.nrc.mw/>)). This is a disadvantage because as much as they are able to give technical advice to the farmers concerning different agriculture problems they still lack some communication skills on effectively communicating the messages. One of the best ways of addressing this challenge is to offer communication training to these extension workers so that they are able to improve their skills.

#### ***5.1.1.4 Lead farmer concept/demonstration blocks***

The lead farmer concept/demonstration plots (a piece of farmland on which a chosen farmer practices new farming technologies for other farmers to learn from) were reported to be one of the methods that the farmers get their messages from. The Department of Extension Services developed the concept of lead farmers, which has been adopted in all the districts in Malawi. The lead farmers are normally chosen amongst the farmers themselves and are trained to train their fellow farmers. The farmers themselves choose the lead farmers of their area through voting. When they are voting they have to make sure that they choose someone who is hardworking, honest, easily accessible and is willing to share knowledge and information with fellow farmers. In Chisamba village they use the lead farmer concept when communicating conservation agriculture messages under the ADP-SP. This is usually done at a demonstration plot locally known as *munda wachitsanzo* where they go twice a week. The demonstration plots, also referred to as “farm schools” are usually in each cluster under each section of a village. The farm school acts as a grocery of different methods of farming where one can go and learn the type of farming that is of interest to them. The different types of farming that are usually at the demonstration plots include; plots that demonstrate the 3 conservation agriculture principles such as avoiding tillage and soil disturbance by encouraging pit planting, maximum soil cover by encouraging the use of maize stalks which acts as manure and returns moisture to the soil, crop rotation and mixed planting which

reduces disease infestation with crops such as maize and groundnuts or soy beans. The farmers choose the type of farming that they would like to learn and apply in their own farms.

Meeting at the demonstration plots was reported as one of the most effective ways of getting information about conservation agriculture because the farmers are able to see and discuss the realities on the ground. In addition to that, the farmers learn from one another as well as share experiences to apply in their gardens. Most people in the village have adopted conservation farming through the lead farmer concept/demonstration plots and are benefiting. One such person is 30 year old Masautso Maumbila who was quoted in one of the focus group discussions saying that:

*“Banja langa lasinthika, ana ndimawagulira nsapato, zovala, makope aku school. Ndikakolola chimanga china ndimatha kugulitsanso ndikupeza ndalama nde ulimi umenewu ukundipindulira ndithu. Poyamba ndikalima 1 ekala sindinkakolola koma panopa 1 ekala ndimakolola ngolo sikisi”* meaning that, **“my family is now changed; I am able to buy shoes, clothes and school books for my children. I am able to sell some of the maize when I harvest and make some money, so this type of farming is very beneficial. At first when I farm on 1 acre of land, I never used to harvest much but now I am able to harvest 5-6 bags of maize”** (Masautso Maumbila, 2012).

#### **5.1.1.5 Village meetings**

Village meetings were reported to be one of the methods that the farmers get information on conservation farming. When the chief wants to communicate any type of information to the people in the village he usually sends a person to go and tell people that there will be a meeting. Another way of calling for a meeting is ringing a bell which is at the center of the village. Senior group village headman Chisamba together with other chiefs usually calls for meetings twice a month to discuss how people are progressing in their gardens in conservation farming and of course other types of farming as well. As it has already been discussed earlier on in the chapter maize stalks are very essential in conservation farming because they provide maximum soil cover, which acts as manure and returns moisture to the soil. During the focus group discussions, it was reported that when the chief or anyone finds or sees someone burning the maize stalks in their gardens (usually people burn maize stalks after harvesting to clear the garden for mice hunting) the person caught is reported to the



chief and is made to pay a fine in the form of a goat. The goat, which is paid to the chief, is meant to be a pass on goat and it goes to the section which is doing well in agricultural production. This is to encourage people not to burn the maize stalks.

Village meetings are a good way of getting feedback from the farmers in terms of how they are progressing in their farms as people are able to express themselves and share ideas in their own local setting, which stimulates openness to each other. Also farmers who are lagging behind in agriculture development activities are encouraged through the same meetings and they are able to change.

#### ***5.1.1.6 Field days***

It was reported that the farmers also get their information through field days. Field days are usually organized by the department of extension services throughout the year to showcase different agriculture technologies, which also act as a learning point for the farmers. At the time of this study, according to the AEDO a field day had just been conducted in Chiwiri Section where farmers were taught how to make manure, another important element of conservation agriculture. During the field day the extension worker managed to organize farmers to put some money together to buy hybrid maize, which is usually cheap when bought in bulk. The farmers used the hybrid maize for the 2012/2013 planting season. As mentioned in earlier chapters, maize is grown annually in Malawi and farmers start planting from November to December when early rains fall. This research was conducted between the months of October and November when the farmers were about to start sowing the maize seeds in their gardens and that is how it was learnt that the maize they sowed was bought at the field day with the help of the extension worker.

The study established that field days are one of the effective ways of passing on messages to farmers because they learn from other farmers who are doing well in different areas of agriculture production. Farmers who are doing well in the use of some agriculture technologies are able to demonstrate how those technologies work. The farmers are also able to ask questions concerning different types of farming to subject matter specialists from the Ministry of Agriculture who normally participate in field days activities. It is thus a platform for showcasing successful agriculture technologies and a point of learning for farmers.

It is interesting to note that after all the success stories of how successfully conservation agriculture has been communicated in Chisamba village through the extension worker, the lead farmer and demonstration blocks, village meetings and field days the research came across non-adopters in conservation farming; these are people who still have not adopted the technology because of various reasons as discussed below:

### **5.1.2 Non adopters in conservation farming**

Waisbord (2001 p.4) refers to Rogers (1983) that the early adopters in any project act as models to emulate by providing an environment for change while on the other hand, those who are slow to adopt are described as laggards. During the focus group discussions it was reported that some farmers have not started practicing conservation farming because they do not want to adopt any technologies when they are just being introduced. Some farmers indicated that they had just not yet seen any importance of conservation farming. The study noted that some friends of these non-adopters try to encourage them and tell them the importance of conservation farming and its benefits in hope that they would also start practicing it. Extension workers persuade village headmen to encourage the non-adopters and get them to understand the importance of conservation farming. However, the study establishes that it is also the duty of the VDC to encourage people who are lagging behind or who have not adopted the technology to start practicing it. When encouraged sometimes those who procrastinate become leaders in using technologies.

According to Ketrina Haddon, one of the farmers, she explained that if there are people who are not adopting the technologies they report them to the village headman because the people belong to the village headman. If the people are still stubborn the chief has the authority to make them pay a fine (Ketrina Haddon, 2012).

It should be noted that even though there are non-adopters in the village, the number of those who have adopted the technology is exceeding those who have not adopted because out of the 30 farmers interviewed, 20 farmers (9 women and 11 men) have adopted conservation farming as a technology, which indicates 66.6 percent adoption rate. The remaining who have not yet adopted indicated that they would start using conservation farming in the 2013/14

planting season because they have seen its benefits from their friends' gardens. This means that the communication modes, which are used to communicate to the farmers on conservation farming in Chisamba are being effective.

Having discussed how the farmers are adopting the technology, it is also important to look at the feedback mechanisms that they use when they have problems concerning their farming because feedback is a very important aspect of every development project cycle and it needs not to be over looked. Depending on how feedback is addressed it can either make or a break the outlook of a project. This also involves taking into consideration the indigenous local knowledge because much can also be learnt from the local people themselves.

### **5.1.3 Feedback mechanism in conservation agriculture**

Mefalopulos (2008 p. 7) emphasises the importance of people's participation in any project development cycle and he discusses that the participation paradigm emphasises that "meaningful participation cannot occur without communication" (Mefalopulos, 2008 p. 7).

Unfortunately, too many development programs, including community-driven ones, seem to overlook this aspect and, while paying attention to participation, do not pay similar attention to communication, intended as the professional use of dialogic methods and tools to promote change. To be truly significant and meaningful, participation needs to be based on the application of genuine two-way communication principles and practices. That is why communication is increasingly considered essential in facilitating stakeholders' engagement in problem analysis and resolution. Development communication has increasingly moved toward a horizontal, "two-way" model, which favours people's active and direct interaction through consultation and dialog" (Mefalopulos 2008 p. 7).

In terms of feedback mechanisms, the farmers indicated that they ask their extension worker when they don't understand anything. The extension worker in most cases was reported to be very good and helpful. Dorothy Miliyoni one of the farmers also explained that if they do not understand something they ask the lead farmers who help them but if the problems are too technical for the lead farmers and the extension worker, the extension workers write a letter to the DADO and Chitedze Agricultural Research Station (this is one of the major

agricultural development research centers in Malawi) that are able to provide technical assistance.

Another way that the farmers provide feedback is through the stakeholder panel committee. The stakeholder panel committee comprises farmers who are chosen from the different sections as well as representative partners from other stakeholders in the agriculture industry including farmer associations, agro dealers who usually meet to discuss on agriculture production at the EPA as well as at the district level. One of the representatives of the stakeholder panel Isaac Kaimbe of Chiwiri Section in Mitundu explained in an in-depth interview that his job is to take developments from the Traditional Authority to the group village headmen who then take the messages to the people at the section level.

As regards feedback mechanisms at the national level, Edward Katunga the Chief Agricultural Communications Officer explained that the Agriculture Communication Department at the national level uses a text messaging system. This mode of communicating obviously is limited to the farmers who have cell phones. They send their views to the department after listening to an agriculture radio program. Quite a few farmers in Malawi own cell phones but the farmers of Chisamba village reported that they do not use the text messaging mechanism system. Katunga, explained that farmers who have mobile phones and can afford the cost of a text message send their feedback after listening to a radio agriculture program called *Ulimi Wa Lero* 'Farming Today' produced by the Agriculture Communications Department, and it is aired on the public radio station. The farmers' texted views and questions are then addressed in the following programs. Another way of sending feedback to the department is through letter writing. The literate farmers write letters to the department as feedback after listening to the radio programs.

The research notes that a majority of farmers in Malawi are resource poor. It should also be noted that most of Malawi's rural area does not have electricity and there is no solar power technology. People rely on batteries to listen to the radio. This status quo makes it difficult for farmers to provide feedback through the available means; sending text messages and writing letters to the ACB. Most farmers in Chisamba like many others across Malawi cannot afford to buy batteries for their radio sets, so they find it hard to listen to agriculture radio programs. Most of the farmers can hardly afford a cell phone, which means that they cannot provide feedback through text messages. Since most farmers cannot afford to send feedback

through text messaging, they usually send their feedback through the extension workers as it has already been noted earlier in the discussion. The Malawi National Statistics (NSO) for 2011 indicates that literacy rate in Malawi is at 60 percent with urban literacy standing at 84.7 percent while that of the rural is at 15.3 percent (National Statistics Office Website, 2013 (<http://www.nsomalawi.mw/>)). Due to low literacy levels in Chisamba providing feedback through letters is a challenge. The few farmers who are able to write can hardly afford the cost of posting letters to ACB.

Out of the 30 farmers interviewed in the study only 5 farmers were reported to be able to write feedback through letters. This type of feedback system is quite disadvantageous as it only favors the literate farmers and those who can afford postage stamps.

#### **5.1.4 Challenges and opportunities of interpersonal communication on conservation farming**

The AEDO of Chisamba section, Steven Kamwendo explained that one of the major challenges in terms of communication amongst the farmers is high illiteracy levels. Most of the farmers in Chisamba village are not able to read and write, which becomes a challenge when they are using print media. Out of the 30 farmers interviewed in the study 15 farmers indicated that they were able to read and write representing 50 percent of literacy level. The other 15 farmers were not able to read and write. This is a challenge to the extension workers because they have to make sure that they are always present to assist the illiterate farmers as they solely depend on them to get any type of information because they cannot read from any of the agriculture books. If more farmers were able to read and write this would greatly ease the communication problems. They would be able to read and learn from the books by themselves without the help of the extension workers.

Another challenge with interpersonal communication in Chisamba is the lack of training in communication skills for the extension workers. The extension workers indicated that they require some training in communication skills so that they can communicate better with the farmers. It is very important for the extension workers to have these skills because they are the ones who work with the farmers and the farmers mostly depend on them for any

information. If the extension workers are well trained, they will be able to train the lead farmers who will also train other farmers thereby bridging the knowledge gap.

In terms of the opportunities of interpersonal communication on conservation farming in Chisamba village, Chagoma the AEDC explained that the secret in achieving high yields in agriculture is communication. He said it is meant to empower the farmers by placing some sort of sustainability strategy whereby the farmers can stand on their own without the assistance of the extension worker. Chagoma observed that the extension workers can fall sick and if farmers are empowered they can do some of the activities alone. Therefore the concept of the lead farmer needs to be capitalized; in this case, the lead farmers need to be trained to make sure that they understand most of the concepts in agriculture production so that they can empower their fellow farmers to be able to work on their own with less assistance and supervision from the extension workers.

The radio can also be a powerful tool in delivering agricultural messages to farmers because at least 5 farmers indicated that sometimes they do listen to agriculture programs on the radio. Unfortunately a larger percentage of the farmers in Chisamba village do not listen to the radio because they cannot afford to buy the radio sets as well as batteries. This is a missed opportunity because basing on research and a report by Farm Radio Malawi in 2011 on “Addressing information gaps in agriculture value chain: the role of radio programming. Proceedings of a 3<sup>rd</sup> annual farm radio symposium” (<http://www.farmradiomw.org/wp-content/uploads/2012/04/3rd-Farm-Radio-Symposium-Report.pdf>); it is stated that the radio is a powerful tool in communicating messages to the farmers even when the extension workers are not available. The radio is also friendly to those who are illiterate as they just listen to the messages without reading anything. The use of the radio therefore is an opportunity for improving communication amongst the farmers in Chisamba.

Another opportunity, which can be maximized in Chisamba with regard to the use of interpersonal communication, according to the AEDO, Steven Kamwendo is integrating the communication methods for example, using the resource center (an agriculture library for the farmers in the village, this will be elaborated more in the chapter) simultaneously with the lead farmer concept/demonstration blocks and or the extension workers methods of communication as it has already been discussed earlier on in the chapter. Combining these modes of communication can be effective because the farmers will be able to gain more

knowledge from the resource center or extension workers and then later on be able to visualize and put the knowledge into practice through the demonstration plots.

Another opportunity with interpersonal communication as outlined by the AEDO is to strengthen the District Agriculture Extension Services System (DAESS) so that the AEDOs, AEDCs and the farmers properly understand their different roles. The DAESS is a system of guidelines for the implementation of the Agricultural Extension Policy. It includes different players in the agriculture value chain who are supposed to play their roles in achieving agriculture productivity. These include members of the stake holder panels, the extension workers, non-governmental organizations, the private sector (radio stations, seed companies, universities), farmer based organizations, and the public sector. The point of the AEDO was that everyone involved in the DAESS structure needs to understand and play their roles properly so that there is harmonization in the agriculture industry. Training would be ideal where all the players who are involved in the DAESS structure would be trained so that they ably deliver in their different roles to help in achieving agriculture productivity and food security.

It is clear from this discussion that there are opportunities with the use of interpersonal communication if the opportunities are maximized. Every element that has been discussed under interpersonal communication is very important in helping to achieve the overall goal of agriculture productivity. Another interesting thing to note is that all the elements, which have been discussed under interpersonal communication somehow, are interrelated because they all aim at communicating to the farmers.

The next section will discuss electronic media as used in Chisamba village complementing the successes of interpersonal communication.

### **1.1.5 Electronic communication**

Communication through radio is a major electronic communication channel in Malawi in many areas including health, politics, education and agriculture. This is because it is a mass media; that is to say it is easily accessible and it reaches a lot of people at once. According to a research report conducted by Farm Radio Malawi (2011) called “Addressing information

gaps in agriculture value chain: the role of radio programming. Proceedings of a 3<sup>rd</sup> annual farm radio symposium” (<http://www.farmradiomw.org/wp-content/uploads/2012/04/3rd-Farm-Radio-Symposium-Report.pdf> on 18.04.2013), the radio is an effective way of communicating to the rural masses in agriculture because it is easily accessible and it reaches a lot of farmers at once. In areas where there are no extension workers, farmers are still able to get agricultural messages through the agriculture radio programs. Unfortunately, the radio has not been fully utilized in Mitundu, Chisamba because as much as some farmers listen to the radio privately, they do not listen to the radio together in groups. These farmers miss an opportunity as the radio, especially if listened to in a group, according to the Farm Radio Malawi report (<http://www.farmradiomw.org/wp-content/uploads/2012/04/3rd-Farm-Radio-Symposium-Report.pdf> on 18.04.2013) is a very powerful tool from which the farmers can get their information. The following section looks at radio programs as used in Mitundu, Chisamba.

#### **5.1.5.1 Radio programs**

Though radio programs do not involve face to face interpersonal communication, it is a powerful tool for communicating to the farmers. At least 5 farmers out of the 30 farmers interviewed in Chisamba village in the study indicated that they sometimes listen to agriculture programs on the public radio the Malawi Broadcasting Corporation (MBC). Most listened to programs include a DAES production called *Ulimi wa lero* (Farming Today) and *Ulimi ndi Bizinesi* (Farming as a Business) produced by NASFAM. The two programs were reported to be helpful at least to the farmers who listen to them regularly. The study established that in Chisamba there are no radio listening groups because of lack of radios and batteries. According to the report by Farm Radio Malawi, (<http://www.farmradiomw.org/wp-content/uploads/2012/04/3rd-Farm-Radio-Symposium-Report.pdf> on 18.04.2013) radio listening groups are very important as farmers are able to listen together in groups and discuss the programs afterwards which can be beneficial to their farming. The nonexistence of radio listening groups in Chisamba village is yet another missed opportunity. Radio is one of the best communication tools and can be very effective and benefit a lot of farmers in the area. An initiative therefore has to be done in the village to put money together and purchase radio sets for listening groups so that when the Ministry of Agriculture or any other



organization comes in to assist, they should only be complementing an already existing initiative.

Another advantage of reaching out to farmers through the radio is that even in the absence of extension workers farmers can still learn from the radio programs, and better still in the comfort of their homes.

Print media is another important way of communicating agriculture information to farmers. The next section looks at how relevant the medium is in Chisamba and if it is used at all.

### **5.1.6 Print media in agricultural communication**

Print media is one of the communication methods that are being used in Chisamba village. During interviews with the farmers, it was established that the most commonly used print media in the village on conservation messages include the use of posters, leaflets and magazine called *Za achikumbi* (About farmers) which is produced by the ACB. The farmers usually access the print information in the resource center, which is located in the village. They visit the resource center twice a week to read together. The resource center is one of the ways of dealing with the problem of illiteracy in the village. When the farmers go to the resource center those who are not able to read and write have an opportunity to learn through a program locally known as Kwacha (adult literacy school). This is a very good initiative for the village because through the adult literacy school farmers learn how to read and write. In addition to that, they also learn different topics including nutrition and different ways of farming. The resource center is therefore a good place where the farmers can get information and also learn from each other.

The disadvantage, however, with print media as observed by the farmers is that it favors those who are literate. As noted earlier, 50 percent of the respondents interviewed in the study were literate having completed primary school. The resource center is a good place to harness all print messages for the farmers because it is accessible to everyone. This initiative works well for Chisamba since the area only has one extension worker and it is virtually impossible for him to visit each farmer individually. The only setback though is that, to a larger extent, it segregates the illiterate.

It is worth mentioning that much as the resource center idea has been lauded as one of the best, farmers in Chisamba are not benefiting from it much in as far as conservation agriculture is concerned. A visit to the resource center during the study revealed that the resource center does not have enough material on conservation agriculture. The whole place only had a leaflet on the technology. Further research revealed that the Department of Extension Services, which produces the leaflets on conservation agriculture, has not been producing the leaflets among its immediate priorities. At the time of the study funds were reportedly being used in other activities. This is a big hindrance for the literate farmers in the area if they are to benefit from print media messages on conservation agriculture.

#### ***5.1.6.1 Leaflet analysis***

The Department of Extension Services has in its guidelines the print media as one way that it communicates with farmers. Production and distribution of leaflets on varied agriculture topics is listed in the guidelines as an important way to reach farmers with farming messages. It was deemed as important that this research should study how the department has employed leaflets to communicate to farmers on conservation agriculture. This is why the researcher visited the resource center in Chisamba first to establish if farmers in the area through the resource center have leaflets on conservation agriculture and second to check the leaflets and establish how messaging is done. This section will analyze the leaflet on conservation agriculture that was found in the resource center in Chisamba since it was the only print material that carried messages about the technology for the farmers in the area.

The analysis of the leaflet will be aided by Paolo Mefalopolus and Chris Kamlongera (2004) analysis of guidelines that need to be considered to develop print media messages. In their discussion about printed communication Paolo Mefalopolus and Chris Kamlongera (2004) states that:

Print materials, having text, or visuals or a combination of the two, are widely used in development to make communication effective. Print materials assist facilitators in interpersonal communication during training sessions or demonstrations. Sometimes they can be used as reference materials. Overhead transparencies, posters, and other visual aids can be used to illustrate points during learning. Handouts that are used by trainees themselves to remember important points are normally illustrated. Print materials are also produced to provide a set of instruction on how to do something,

including how to use communication materials. Print visual materials are particularly effective for generating discussions, as are flipcharts and picture codes. Posters are used extensively where one wants to draw the attention of people to specific issues.

Words and images constitute the two basic elements of the print medium. Words are particularly critical where one wants to provide accurate understanding of concepts, instructions and procedures. However they can also be tedious and difficult to understand at times. In many instances they are practically useless, as the majority of people in the developing world are illiterate. Images, on the other hand, have an easier and more direct appeal, as pictures almost naturally attract the attention of the eye. To understand a picture (provided it is compatible with the cultural environment) you do not need to have done any particular study.

Materials using text are very useful when you want to inform people about events as well as provide them with technical knowledge on specific issues. Print visual materials are on the other hand, particularly effective when used to stimulate discussion (an image appeals to everybody and its meaning can be interpreted by anybody in a variety of ways) or to draw attention to a specific subject, either by appealing to their curiosity, desires or fears.

**Text:** Any material based exclusively or mainly on words. It includes books, leaflets, brochures, guides, etc.

**Visual Materials:** These are drawings, pictures or photographs carrying a message or drawing the attention on one issue without the use of words. They include posters, stickers, murals, etc. (Mefalopolus & Kamlongera, 2004 p.58).

Paolo Mefalopolus and Chris Kamlongera (2004) further explain that:

Leaflets provide reminders about the ideas and key technical points raised in flipcharts. With posters and leaflets the project is more visible, dynamic and important; mass awareness of the new idea is achieved; vital technical information is widely distributed in a consistent form (Mefalopolus & Kamlongera, 2004 p.61).

Mefalopolus & Kamlongera, (2004 p.62) discuss that elements to be aware of when preparing for the production of print media include; culture, illiteracy levels, language use and application/technical use of the print media (Mefalopolus & Kamlongera, 2004 p.62).

**Culture** - printed materials have of necessity to be culturally relevant and appropriate. From culture to culture images or metaphors that might be visually represented could mean different things, which are acceptable or not acceptable

**Educational Level** - illustrated print materials can also have text. It is important to know whether the interaction group for which the materials are meant, are literate.

**Content** - the content, that is what is presented by the print materials, should always be relevant and appropriate to the context. Subject matter, age, gender, and preferences for colour, appeals, and perceptions of the community determine the context, closely related to the cultural element. If you deal with visual materials you are strongly advised, wherever possible, to work with an artist from the community. This will ensure the appropriateness of the materials; encourage the community to bring out the materials associated with the topic and assist actively in the production process.

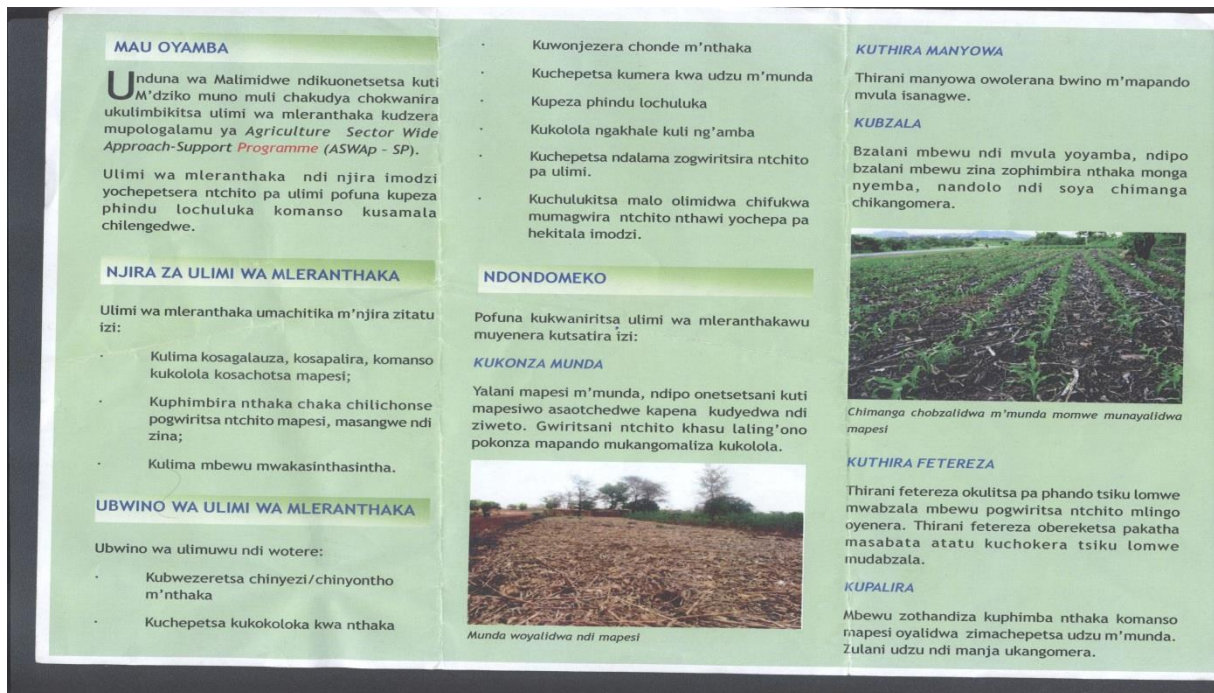
**Language** - communication becomes a two-way understanding if the spoken and written language and that of visualisation, is spoken and fully understood by the interaction group. Language is the first window to a people's culture. Unless one prints materials using the people's language, it might not be possible to access the people's culture.

**Application/Technical Use** - materials for discussion, education, information or training should be pertinent to the application, or technical use for which they are meant. Indigenous technical knowledge regarding the matter should also have been known from the participatory research (Mefalopolus & Kamlongera, 2004 p.62).

From this analysis the importance of properly considering the elements discussed is obvious if one endeavors to develop print materials that can effectively communicate to the intended audience. This analysis has provided basis for the following critical analysis of the leaflet found in the resource center in Chisamba during the research.

The leaflet was developed to explain how farmers can practice conservation farming. Three focus areas of the leaflet were examined; the general content, the text and images. This was done to assess the communicativeness of the leaflet considering the literacy level of the farmers in Chisamba.

### 5.1.6.2 Fig Picture of leaflet content



### 5.1.6.3 Critical analysis of the text and content

The leaflet had a message on how to practice conservation farming. The leaflet did not have a title, which is very bad because it does not attract the reader to open the inside and read. A good leaflet is supposed to have a good title, which will give the reader a desire to find out what is contained inside. The content in the leaflet explains the process of conservation farming with subheadings titled “*njira za ulimi wa mlera nthaka*” (“different ways of practicing conservation farming”), “*ubwino wa ulimi wa mleranthaka*” (“benefits of conservation farming”), “*ndondomeko*” (“steps to follow”).

(Mefalopolus & Kamlongera, 2004 p.62) says the:

The content, that is what is presented by the print materials, should always be relevant and appropriate to the context. Subject matter, age, gender, and preferences for colour, appeals, and perceptions of the community determine the context, closely related to the cultural element (Mefalopolus & Kamlongera, 2004 p.62).

The content in the leaflet was appropriate for the context as it properly served its intended purpose and most farmers were able to understand the content of the leaflet with an exception

of a few farmers who were not able to understand anything in the leaflet. The leaflet thus took into consideration the age, gender and the culture of the people. However, it was discovered that the instructions in the leaflets were lacking some pertinent information for the villagers to understand and some of the information was a bit complex as observed by a 25 year old woman who said:

*“Nkhaniyitu ndiye ikumveka koma zinthu zina zikusowekelamo kuti timvetsetse bwino bwino ngati akuti thirani feteleza okulitsa pa phando koma sitikudziwwa kuti tithela feteleza wochulukira bwnji”* Meaning **“I am able to understand what is written in the leaflet, however, there is some information which is missing, for example it says apply growth fertilizer but it does not specify how much fertilizer to apply”** ( Mrs Tobias Banda, 2012).

In another instance, a 30 year old man who had studied up to mid-level primary education said he could not understand what the leaflet tried to say:

*“Ine ndiye nkhani imene yanenedwa pamene payi sindikuimva ndipo sindingathe kulongosola kwake”* Meaning **“I am not able to understand the content in the leaflet”** (Masautso Maumbira, 2012).

On the other hand some farmers found the leaflet to be very useful as with a case of a 35 year old woman who completed primary school:

*“Mapepala emenewa athandiza kwabasi chifukwa tadziwa kalimidwe ka mlera nthaka”* Meaning **“I find the leaflet useful for I have learnt a lot on how to do conservation farming”**.

Out of the 30 farmers who were interviewed, 15 were able to read and understand the leaflet because they had attained at least primary education. This means that the leaflet managed to communicate to 50 percent of the farmers. The other 15 farmers who were illiterate and could not understand anything represents the 50 percent that the leaflet failed to communicate to.

The font size of the leaflet was 14; one and half spaced. Malawian grade 1 and 2 books use font 21 which is quite big and is double spaced to make it easy for primary school pupils to read and not to lose interest in whatever is written, considering that their literacy capacity is low. The leaflet took into account the low literacy level of the farmers so the messages were precise and concise but in some areas the instructions were unclear and bit complex for the

farmer's grasp. Though the font was smaller, it was consistent with the size of the leaflet. The farmers who are literate were able to understand it. The language used in the leaflet is *Chichewa*, a local dialect, which the literate farmers were able to read and understand. The language therefore took into consideration the cultural needs of the people in the area and it managed to serve its intended purpose. As regards the application/technical use of the leaflet; it managed to communicate the general information to the farmers but it failed to communicate the more complex or technical messages, the leaflet did not manage to provide the information in a way that the farmers could understand. While these characteristics made the leaflet user friendly for literate farmers, those who are illiterate got nothing from it.

### **5.1.7 Institution study of the flow of communication in the Agriculture Communications Branch (ACB) in the ASWAp**

During an interview with the Chief Agriculture Communication Officer (CACO) Katunga (2012) on the flow of information at ACB, he started by giving the mandate of the Agriculture Communications Branch, which is to develop and disseminate messages using print and electronic media, which is done in order to facilitate the adoption of agricultural technologies. In terms of how communication is done under the ADP-SP in the ASWAp, he explained that messages are disseminated through print and electronic media (radio) as well as during field days where in most cases leaflets are distributed. He also explained that the department is in the process of developing a communication strategy for the ASWAp.

When asked of the most effective way of communicating the messages to the farmers, he explained that usually efficiency is achieved when one or more methods of communication channels are combined. For example he said;

The use of radio can be followed up with the use of demonstration plots so that the farmers are able to visualize what they hear on the radio (Katunga, 2012).

It is interesting to note that, this has also been noted earlier on in the paper by the AEDC who explained that one of the opportunities of interpersonal communication in Mitundu, Chisamba can be achieved by combining one or more of the communication methods.

In terms of the challenges that the branch faces when communicating messages to the farmers he explained that the department faces shortage of staff. For example, there is no Information Communication Specialist in the department. Another challenge of communicating the

messages to the farmers is that most of the farmers are illiterate and as such the print method of communication is not effective since only a small part of the population of the farmers benefit (Katunga, 2012).

The shortage of staff is not only a problem at ACB but in all the 29 districts in Malawi where extension workers are required. The extension workers are very few compared to the number of farmers that need to be served. It is thus very difficult to achieve great results in agriculture productivity with a few extension workers available. According to a study done by Emmanuel Kaunda of the University of Malawi, Bunda College of agriculture (Kaunda 2011), currently there are 1,887 extension workers against 2880 posts leaving 993 posts vacant against 3 million farming households. This shows that the extension workers are a few and cannot manage to address the problems of every farmer in the areas. This leaves most of the farmers, more especially those in the very remote areas at a disadvantage as they cannot access the services of an extension worker. Also in most cases the extension workers avoid to go and work in the remote areas because of poor infrastructure like roads and absence of social services like schools and hospitals.

In another interview with one of the Communication Officer at ACB, Mark Ndipita (2012), he explained that his role as an Agriculture Communication Officer is to ensure that farmers are served with timely and correct messages, which will help them improve their productivity in crops as well as livestock. The farmers would also be able to adopt different agriculture technologies with the ultimate goal of achieving food security

He also explained that the department uses print (posters, leaflets, calendars) and electronic (radio and video and the mobile van) media as communication channels for the farmers although 95 percent of the video documentaries that the branch produces however does not target the farmers but rather the policy makers and stake holders (Ndipita, 2012).

This is a misplacement of resources because the main target of the Ministry are the farmers and not the stake holders, so resources should be spent to communicate through the agriculture video documentaries with farmers. The department therefore needs to come up with some guidelines for a communication strategy, which can be distributed to policy makers so that they are able to know and understand their intended target audience which is the farmer.



When asked on how messages are communicated under the ADP-SP in the ASWAp, he said that the ASWAp does not put much emphasis on communication although there are some activities which are planned under an output in the ASWAp called ‘increased technology generation and dissemination’. The number of activity, however, that are put under the output are very little. He added that implementation of communication activities under the ASWAp is adhoc. It is not clearly planned. Ndipita (2012) said the direction for ASWAp, is not clearly laid out. There is therefore a need for communication guidelines to be developed for the ASWAp if results are to be achieved. Since there are no guidelines on how activities are supposed to be done in the ASWAp it is a recipe for failure.

The communication officer also noticed a problem in terms of what the Ministry of Agriculture defines as communication. He said;

The Ministry only thinks of communication as radio, video and perhaps other publications, which is myopic thinking. As such the department is missing out on other areas, which farmers would have benefitted through other forms of communication. Instead communication under ASWAp should have been both internal and external where internal communication will be addressing the communication strategy needs internally, that is within the organization and external communication will be aimed at targeting the farmers. (Ndipita, 2012).

As regards the impact under ASWAp, Ndipita explained that this is not known because there are no baseline studies and reports that are done and thus it is difficult to measure the impact.

People at the department just decide that today a certain video documentary needs to come out and it is produced and that is what is called communication but in terms of analyzing whether the different communication modes are impacting the farmer this is not done (Ndipita, 2012).

Following are the findings of how communication under the ASWAp can be improved. These findings are based on the interviews conducted with the Chief Agriculture Communication Officer and the Communication Officer in the Agriculture Communications Branch as well as from my own observation as a Communication Officer working in the department:

- Policy makers and the top management personnel should change their mindset on what communication really is. Policy makers should understand that communication is a powerful tool in achieving agricultural productivity and as such the

communication branch needs to be involved in the early stages when implementing programs (Ndipita, 2012).

- Another problem which was noticed was that the communication branch is housed in the Department of Extension Services together with other four departments as such it is not given much importance, if it was a branch that stood on its own probably its relevance would have been more pronounced. Perhaps there is a need to lobby for the ACB to be independent so that its relevance can be seen (Katunga, 2012).
- Most staff in the branch also needs to upgrade their qualifications in order to effectively deliver. As it has already been discussed earlier there is need to employ more staff in the Ministry to cater for the large population of farmers (Katunga, 2012).
- There is need to buy new equipment for production and printing of publications which is supposed to be distributed to the farmers in all the different areas in Malawi. Most of the machines are old and archaic (Ndipita, 2012)
- The branch also needs to be proactive and show what it is capable of delivering in order to compete on the market so that other people can demand services from it. This can help in providing some income to the branch which can be used in different areas including training needs of the members of staff (researcher observation and Katunga, 2012).
- Another problem is mobility and funding. Communication is very expensive and usually the least budgeted for in most cases as such the branch fails to ably deliver because it does not have sufficient funds to carry out the tasks that have been assigned to it (Ndipita, 2012).
- There is need for a communication audit and also research to be periodically done by the branch. Activities are done basing on what the officers think and not on what farmers want; the approach is top down and thus missing the reality on the ground. Officers just work and do not care whether it has achieved the intended purpose or not. In addition to that it was discovered that officers just work to earn a salary and nothing more. The civil servants are amongst the poorly paid citizens in the country as such most officers are usually busy with their personal businesses and looking for other means to earn a living as the salary alone is not enough to support their families. The government of Malawi needs to revise the salaries of the civil servants so that they are motivated to carry out their work (personal observation and Ndipita, 2012).

- There is also lack of motivation in the Agriculture Development Divisions (ADDs), the officers there are not keen to learn, even though they are trained, most of them do not properly deliver. Perhaps it goes back to the poor conditions in the government system. (Ndipita, 2012)
- Communication entails a lot, it is not only about radio video and press releases, there is a lot that communication can do. There is need for both internal (Communication within the organization) and external (Communication with the farmers) communication to be at play. This goes down to even looking at the different structures that are in place at the work place for communication such as tea rooms where most internal communication is done (Ndipita, 2012).
- Research is an important aspect of communication, which needs not to be overlooked because it is helpful in the evaluation of programs and also as a feedback mechanism system. It acts as a tool of measuring what kind of programs are working and which ones are not (Ndipita, 2012).

The institutional study brings the research to a conclusion that there is need for proper guidelines to be developed for a development of a communication strategy for the ADP-SP under the ASWAp as well as any other projects, which will be implemented in the Department of Extension Services. This would sort out most of the communication problems that exist both internally (within the Ministry of Agriculture) and externally (with the farmers).

The next section discusses findings from an in-depth interview with the Land Resources Officer at the Natural Resources Department as well as the Radio Officer from the National Smallholder Farmers Association of Malawi (NASFAM). The Natural Resources Department is a department in the Ministry of Agriculture that offers technical support to famers on issues of land resources management. NASFAM is one of the stakeholders and a partner of the Ministry of Agriculture that also works on conservation agriculture. The researcher felt it was necessary to interview them because they have a big role in impacting the lives of farmers in Malawi and it is of importance to recognize the role that they are playing in agricultural development.

### 5.1.8 Information on conservation agriculture from other stakeholders

The last element is the diffusion of innovation theory according to Rogers (1983, p. 24) is social system.

This looks at interrelated units that are engaged in joint problem solving to accomplish a common goal (Rogers 1983 p. 24).

In this study such interrelated units could be the Ministry of Agriculture, Department of Extension, Department of Natural Resources, the farmers themselves and all the stakeholders that take part to achieve in persuading farmers to use conservation agriculture. This section therefore discusses findings from interviews with Gertrude Kambauwa, the Land Resources Officer from the Natural Resources Department, a department in the Ministry of Agriculture and Andrew Mahiu of National Smallholder Farmers Association of Malawi (NASFAM) which is one of the organisations that promotes conservation farming.

NASFAM is the largest independent, smallholder-owned membership organization in Malawi. It was founded on the principles of collective action and is democratically governed by its members. Founded in 1997, NASFAM is a farmer-directed business system based on the individual participation of over 100,000 Malawian smallholders, most of them farming on less than a hectare of land (NASFAM website, 2012 <http://www.nasfam.org/>).

During an interview with Andrew Mahiu, NASFAMs Radio Officer he explained that the communications section of NASFAM comprises the radio and publications section which is attached to the monitoring and evaluations department. Under the radio section, they go out and record interviews from subject matter specialists as well as farmers. The recorded interviews are used in NASFAM's 30 minutes agriculture radio program called *Ulimi ndi Bizinesi* (Farming as a Business) which comes out twice a week; Mondays and Saturdays. Other relevant information for the radio programs is provided by the farm services unit under the crops department (Mahiu, 2012). NASFAM has 43 associations covering 14 districts in Malawi. Farmers in all the associations including Mitundu where the current research took place are practicing conservation agriculture. Each month one radio program is dedicated to conservation agriculture. The programs are aired on Malawi Broadcasting Corporation,

Malawi's only public radio station. Mahiu (2012) said NASFAM had tried to start airing the programs on a privately owned radio station called Zodiak but it was expensive for NASFAM to afford paying for the air time.

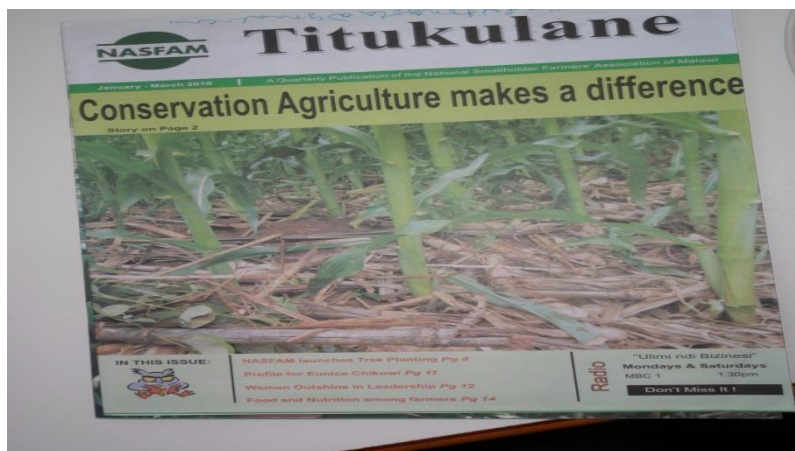
The radio programs have proven to be beneficial to the farmers. In 2010 NASFAM conducted a panel discussion with farmers who are practicing conservation agriculture in order to show how farmers in their association centers are benefitting from practicing conservation farming. The panel discussion was aired on the radio so that other farmers around the country could listen and learn from success stories of the farmers who participated in the panel discussion. The panel discussion was recorded as a success because the farmers who listened wrote letters to NASFAM to give feedback of what they had learnt after from the panel discussion (Mahiu, 2012). Another testimony of how radio programs have benefitted farmers is NASFAM's distribution of 500 radios sets to all its associations as a way of encouraging them to listen to radio in groups. Mahiu (2012) said the farmers are required to submit reports of what they have discussed from the radio programs every month to NASFAM.

This is a very good initiative because it is encouraging more farmers to practice conservation agriculture. There is need for the Ministry of Agriculture to partner with NASFAM to encourage the farmers in Mitundu, Chisamba to start listening to the radio actively since NASFAM has been successful in encouraging farmers to listen to agriculture programs on the radio in groups.

According to Mahiu (2012) radio is the most efficient mode of communication that NASFAM uses because it can be heard by both literate and illiterate people while communicating through publications only favors the literate. Publications, Mahiu (2012) explains have other challenges, which include delays in distribution because in most cases when they are delivered in NASFAM association centers they are just stockpiled instead of being distributed to the farmers. Also when some members receive NASFAM publications they just keep them without sharing with other farmers.

NASFAM produces two publications; a farmers' profile and a quarterly newsletter called *Titukulane*, which means "Let us develop one another". In the farmers' profile farmers practicing conservation agriculture are interviewed and the profile of their farming is published. Some of the information from the interviews forms part of articles in the newsletter. 6000 copies of the two publications are produced and distributed to farmer clubs.

Picture of *Titukulane*, a NASFAM magazine



NASFAM also communicates to farmers through production of video documentaries (Mahiu, 2012). NASFAM produced a video documentary of farmers who are successfully practicing conservation agriculture. The video has been distributed in the association centers for other farmers to watch and learn.

The Ministry of Agriculture can also emulate the same example and produce agricultural video documentaries for distribution in the extension planning areas and resource centers where farmers can gather to watch and discuss.

NASFAM has a special department for monitoring and evaluation and it conducts evaluations every year to establish the impact that NASFAM has in its program areas (Mahiu, 2012). In terms of feedback for the radio programs the monitoring and evaluations team conducted a survey in October 2012 and it was found out that 83 percent of the farmers listen to the radio programs (Mahiu, 2012).

The Agriculture Communications Branch need to emulate this very important practice of conducting periodic monitoring and evaluations of its programs to gauge if they are having any impact on the farmers in Malawi.

As regards to mainstreaming gender when communicating conservation agriculture messages it was found out that NASFAM's farm services and community development unit does offer information on gender issues. However, NASFAM as a whole encourages the participation of both male and female farmers. The association held a radio panel discussion on how farmers

share leadership roles between men and women and it had an overwhelming response as farmers who listened wrote back with feedback of what they learnt (Mahiu, 2012).

In an interview with Getrude Kambawuwa, the Land Resources Officer from the Land Resources Department, she explained that the Department of Natural Resources in the Ministry of Agriculture just provides technical messages to the farmers but they are not responsible for the production of communication messages to the farmers under conservation agriculture. Development of messages is done in conjunction with the Agriculture Communications Branch (ACB) because the Department of Natural Resources mainly just provides the technical messages and ACB produces them into messages for farmers (Kambawuwa, 2012).

It is showing from the above analysis that NASFAM is doing well with communicating conservation agriculture messages to farmers in its different impact areas. On the other hand there is need for some collaboration between NASFAM and the Ministry of Agriculture to achieve sustainable agriculture and food security. The two have the same goal and the Ministry can learn a lot from NASFAM.

Having discussed information collected on conservation agriculture from other stake holders, the next section discusses gender mainstreaming in agricultural development. This section has been included because it was one of the objectives of the study to find out how gender is mainstreamed when communicating agriculture messages.

#### **5.1.9 Gender mainstreaming when communicating conservation agriculture messages**

As discussed earlier in the paper, this research was interested in finding out how gender is mainstreamed when communicating agriculture messages. This is because gender is an important aspect of agricultural communication and it does not need to be overlooked as it encourages both female and male views and participation.

During an interview with Boaz Mandula, the Agriculture Gender Roles and Extension Support Services Officer in the Department of Agriculture Gender Roles and Extension Support Services (AGRESS) he explained that the mandate of the department is to promote mainstreaming of gender in all agriculture programs in the Department of Agriculture Extension Services as well as encouraging meaningful participation of various gender categories which include women, the elderly, child headed households, people living with

HIV and the vulnerable. Mandula (2012) observed that women were sidelined in agriculture issues. A good example would be in an instance where a meeting is called and the women will not be participating because they are preparing lunch for the participants. In the past this usually used to be the case but currently, things are changing. Women were mainly trained in farm home management or as farm home assistants, which was a bias as it was depriving women of other roles that they are capable of delivering. Now the main target is taking the family as a unit in terms of what the roles of the man, woman and children would be able to play in their own capacities (Mandula, 2012).

The Department has several strategies of mainstreaming gender in agriculture programs. They have the Agriculture Gender and HIV Mainstreaming Strategy, which was developed through the support of the Food Agriculture Organization (FAO). This was also developed together with other players in the agriculture sector including the Ministry of Agriculture. This is a good initiative because it would be easy to mainstream gender activities when communicating agriculture activities with reference to the gender mainstreaming strategy. A manual was also developed to train frontline staffs and subject matter specialists on the strategy so that they could train the AEDCs in the different districts and in turn the AEDCs would train the AEDOs and lead farmers (Mandula, 2012).

Another gender mainstreaming strategy tool that the department uses is the promotion of gender analysis through a booklet which was developed in the use of participatory rural appraisals (PRAs) that can help in bringing out gender related issues. In addition to that, they also encourage other departments in the Ministry of Agriculture that whenever they are developing their programs they should be including the gender component. For example, if the Department of Irrigation has organized a 5 days training for the farmers, they should make sure that they allocate sometime in the program to discuss gender issues by encouraging farmer participation in the projects to be 50 percent men and 50 percent women (Mandula, 2012).

Apart from the different strategies of mainstreaming gender the department is also a part of a technical working group under the ASWAp where discussions on mainstreaming gender are discussed at length. This is a very good initiative because it is a good forum of addressing some of the challenges that farmers face with the issues of gender (Mandula, 2012).

Some of the critical issues when talking about gender are the disparities between men and women that hamper agriculture development. A good example can be the sidelining of



women in many developmental activities including agriculture programs and yet they are the ones who contribute about 60 percent to the agriculture labor force as compared to men. There are, however, efforts by the Ministry of Agriculture and other stakeholders to deal with the gender disparities that exist as long as they remain a challenge.

One of the challenges that Mandula gave in terms of mainstreaming gender in agriculture was the wrong perception that people have in understanding gender issues. However things are now improving as most people are becoming aware of gender issues because different stakeholders are also coming in to give support on gender related activities. (Mandula, 2012).

During an interview with the AEDO of Chisamba section, Steven Kamwendo, he explained that gender messages are communicated to farmers together with the agriculture messages. During the 1980s women used to be sidelined but now they make sure that they are included and that they are able to participate in agriculture activities as well as making sure that there should be equal participation and equal sharing of responsibilities. Those that are infected with the HIV are also encouraged to participate (Kamwendo, 2012). This shows that gender mainstreaming is being achieved in Chisamba village because there is equal participation of both male and female farmers. Actually in some instances female farmers were seen to be more active than the male farmers and this was evidenced through observing the respondents in the focus group discussions where women were more active in answering questions than men.

Some of the gender messages that the AEDO and AEDC communicate to the farmers are that they should be helping each other in the different agriculture jobs disregarding who is supposed to do the job. For example women can help in manure making even though it is seen as a male dominated job. The AEDO and AEDC also encourage the farmers that when they are forming their different committees they should make sure that women are included in decision making positions. The senior chief commented that they make sure that women are included in agricultural development, for example the women were able to dig their own fish dams and they are able to put the maize stalks which are required in conservation farming in the gardens on their own. In the past this kind of a job was considered to be male dominated (Chief Chisamba, 2012).

Gender mainstreaming is a very important aspect when communicating agricultural activities since it allows both male and female views to be taken on board in the process also

empowering the women who have been sidelined in agricultural activities for so many years. The above analysis has shown that the Department of Agriculture Gender Roles and Extension Support Services (AGRESS) in the Department of Agriculture Extension Services is taking a leading role in mainstreaming gender when communicating agricultural activities which is a positive development. The discussion has also shown that gender is being mainstreamed when communicating conservation agriculture messages in Chisamba.

The next section gives a summary of the findings and discussion chapter as well as recommendations based on the findings and discussions.

#### **5.1.10 Summary of chapter and recommendations**

This chapter has analyzed the communication methods as used in the conservation agriculture project under the ADP-SP in the ASWAp. The findings and discussions in the chapter focused on three main thematic areas that emerged during the cutting and sorting manipulative techniques as elaborated by Russell Bernard and Gery Ryan (2010). These thematic areas include; interpersonal communication, electronic communication and print media as used in the ADP-SP project on communicating conservation agriculture messages to farmers. The data was also analyzed taking into consideration the four stages of Evert Rogers' (1983, p. 10) diffusion of innovation, which are innovation, communication channels, time and social system. In this study the diffusion or the idea was to teach farmers about conservation farming. After coming up with the innovation it was then communicated to farmers using different methods that are established in the Agriculture Communications Branch. The second element of the innovations theory which according to Rogers (1983, p. 17) is communication channels was mainly through interpersonal communication, a bit of electronic communication through the use of radio and print communication using the leaflets.

Interpersonal communication emerged as a preferred method that is mostly used when communicating information to the farmers. Agricultural messages were reported mainly to be gotten from the extension workers. There is a need therefore to find ways that can help strengthen the work of the extension workers because they cannot manage to visit each farmer individually. Some of the ways could be, for example introduction of radio listening groups for the farmers to be able to get messages through the radio.

The third element in the diffusion of innovation theory is, according to Rogers (1983, p. 20) time and it looks at how long an individual has taken from the first time of knowing about the innovation to the time when it has been adopted or rejected. It can thus be seen from the findings that it took a space of one month for the farmers to organize themselves and form groups on conservation farming. When the extension worker came to the village and told the farmers, they immediately took action and adopted conservation as a farming technology. When the farmers were told of conservation farming, they also influenced each other by forming groups; this is in line with the diffusion of innovation theory of communication which says that interpersonal communication is important because it influences individuals who are near peers to eventually influence each other to adopt a new idea, in this case adopting the technology of conservation agriculture (Rogers, 1983 p. 18). It was easy for fellow farmers to influence each other as they live in the same area and are able to see the advantages of practicing the technology.

Meeting at the demonstration plots was also reported to be one of the most effective ways of getting information about conservation agriculture because they were able to see and discuss the reality on the ground. In addition to that, they were able to learn from one another as well as share experiences to apply in their gardens. Most people in the village have adopted conservation farming and are benefiting. Out of the 30 farmers interviewed, 20 farmers (9 women and 11 men) have adopted conservation farming as a technology, which indicates a 66.6 per cent adoption rate. The remaining who had not yet adopted indicated that they would start using conservation farming in the 2013/2014 planting season (because they have seen its benefits from fellow farmers' gardens).

Village meetings were reported to be a good way of getting feedback from the farmers in terms of how they are progressing in their farms as people are able to express themselves and share ideas. It was also reported that the farmers get their information through field days. Field days are normally organized by the department of extension services throughout the year to showcase different agriculture technologies, which also act as a learning point for the farmers.

As regards to electronic communication (radio), it was discussed that it is one of the communication channels which is mainly used in agricultural communication in Malawi, this is because according to a report on "Addressing information gaps in agriculture value chain: the role of radio programming. Proceedings of a 3<sup>rd</sup> annual farm radio symposium" by Farm

Radio Malawi (2011) radio reaches a lot of farmers at once and in areas where there are no extension workers, farmers are still able to get agricultural messages through the agriculture radio programs. Unfortunately, the radio has not been much utilized in Mitundu, Chisamba because as much as some farmers (5 out of 30) listen to the radio in their homes, they do not listen to the radio together in groups. This is a missed opportunity as the radio, especially if listened to in a group is a very powerful tool which the farmers can get their information from.

As regards to print media, the chapter has discussed that the use of leaflets communicated effectively in terms of the text and content to those that were literate (who had gone through primary education), but to those that were illiterate (didn't have any primary education) they found it hard to understand the messages. Another big disadvantage was that the leaflet did not have a title and images on the front page, which made it worse for those who were illiterate to understand anything. However, the two images, which were inside were clear and managed to communicate the correct way of putting maize stalks in conservation farming to the farmers.

In terms of challenges with interpersonal communication, illiteracy was reported to be one of the challenges. Most farmers are not able to read and write which becomes a challenge when using print media. The problem of illiteracy is being addressed through the adult literacy school located right in the village. There is therefore a need for more programs to be developed to assist in improving the literacy levels of the people of Chisamba. According to the Malawi National Statistics Office (NSO) for 2011, literacy in Malawi is at 60 percent with urban literacy standing at 84.7 percent while that of the rural is at 15.3 percent (National Statistics Office website, 2012 <http://www.nsomalawi.mw/>). This indicates that the literacy level in the rural areas of Malawi is indeed very low.

Another challenge with interpersonal communication in Chisamba is the lack of training skills in communication for the extension workers. It is very important for the extension workers to have these skills because they are the ones who work with the farmers and the farmers mostly depend on extension workers for any information as such they have the power to impart either positive or negative information to the farmers. If the extension workers are well trained, they will be able to train the lead farmers who will also train other farmers thereby bridging the knowledge gap.

In terms of the opportunities of interpersonal communication on conservation farming in Chisamba village it was found out that the best communication method is the use of the extension worker and the lead farmer or combining one or more of the methods. The radio, though not commonly used in Chisamba village can also be a powerful tool in delivering agricultural messages to farmers. There is therefore a need to form radio listening groups in Chisamba village to benefit from the advantages that radio has in communication. The secret in achieving high yields in agriculture was found out to be communication which is meant to empower the farmers by placing some sort of a sustainability strategy because the extension workers can fall sick and if the farmers are empowered they can do some of the activities alone even without the help of the extension worker.

Another opportunity is to strengthen the District Agriculture Extension Services System (DAESS) structure so that members of the stake holder panels, the extension workers, non-governmental organizations, the private sector (radio stations, seed companies, universities), farmer based organizations, and the public sector properly understand their different roles and are able to deliver. The Department of Extension Services therefore needs to conduct more sensitization trainings with all its stakeholders in the DAESS structure so that they are taught on the different roles that they are supposed to play if good results are to be achieved.

In terms of feedback mechanisms used under the conservation agriculture project, it was found out that feedback was mainly sent through the Agriculture Extension Officers and the representatives of the stakeholder panel, which managed to qualify for a two way feedback system. A problem was noted, however, in terms of feedback methods using text messaging and letter writing that ACB mainly recommends at the national level because most of the farmers cannot afford text messages and posting letters. There is therefore a need for the Agriculture Communication Branch in the Department of Extension Services to improve its feedback mechanisms at the national level.

Gender mainstreaming was discussed to be a very important tool when communicating agricultural activities since it allows both male and female views to be taken on board in the process also empowering the women who have been sidelined in agricultural activities for so many years. The Department of Agriculture Gender Roles and Extension Support Services (AGRESS) in the Department of Agriculture Extension Services is taking a leading role in mainstreaming gender when communicating agricultural activities which is a positive

development. This is manifested in the different activities of the farmers where there is equal participation of both male and females. It has also been seen that gender is being mainstreamed when communicating conservation agriculture messages in Chisamba.

The chapter has also discussed the last element is the diffusion of innovation theory which according to Rogers (1983, p. 24) is the social system.

This looks at interrelated units that are engaged in joint problem solving to accomplish a common goal (Rogers, 1983 p. 24).

The partner organisation that was studied was the Land Resources Department and NASFAM. The Land Resources Department mainly provides technical messages to Agriculture Communication Branch and they develop the messages together. On the other hand NASFAM is doing well in its radio programs and print media (magazine production and profiles). Farmers are able to listen in groups and give feedback through writing reports

During a study on the analysis of the flow of information at ACB under the ASWAp it was found out that the ASWAp does not put much emphasis on communication although there are some activities which are planned under an output in the ASWAp called ‘increased technology generation and dissemination’. The number of activities, however, that is put under the output is very low. In addition to that it was found out that implementation of communication activities under the ASWAp is done haphazardly and is not clearly planned. The direction for ASWAp therefore needs to be properly documented.

There is need for communication guidelines to be developed for the ASWAp if good results are to be achieved. Absence of guidelines on how activities are supposed to be done in the ASWAp is a recipe for disaster. Communication at the top (ministerial level) needs to be properly documented if success is to be achieved at the grass root (farmers) levels.

One of the Communication Officers noticed a problem in terms of what the Ministry of Agriculture considers communication. The ministry seems to only think of communication as radio, video and some publications. The ministry is being short sighted because the Department of Agriculture Extension Services is missing out on other forms of communication through which farmers would have benefitted (Ndipita, 2012).

Therefore, an overall conclusion of the chapter is that communication (whether print or verbal) plays a critical role in communicating agriculture messages and as such it needs to be

taken into great consideration if development projects are to be successful. Placing proper feedback mechanisms between the farmers and the Ministry of Agriculture is also another important element as it puts the ministry on track in terms of what the farmers' needs are. Gender mainstreaming is also another important element which must be seriously considered when communicating in agriculture as both the female and male views and needs are crucial in the development of programs. In addition to that, the involvement of other stakeholders is also a very important element in agricultural communication and they need to work in a harmonized way with the Ministry of Agriculture to avoid delivering conflicting messages to the farmers. Print media also plays a very crucial part in communicating to the villagers. When considering the type of print media to be used Mefalopolus and Kamlongera (2004, p.62) says it is important to take into consideration the education level of the community, their culture and its application/technical use. This is important as it helps in properly communicating messages to the intended audience (Mefalopolus & Kamlongera, 2004, p.62).

#### **5.1.11 Recommendations based on findings and discussions**

Based on the findings and discussions and also based on my own analysis and insights from the research as well as experience as Communication Officer in the Ministry of Agriculture this thesis therefore gives the following recommendations on how communication in the ADP-SP under the ASWAp can be improved (these recommendations can provide some guidelines for the development of a communication strategy of the ASWAp):-

- Policy makers and other stakeholders need to change their mindset on what communication really is. They need to understand that communication is a powerful tool in achieving agricultural productivity and as such the Agriculture Communication Branch in the Department of Extension Services needs to be involved in the early stages when implementing programs. This is with reference to an interview with the Communication Officer (Ndipita) referred to on page 76.
- The Communication Branch in the Department of Extension Services, which is housed with other four branches of the department, needs to be a stand-alone branch so that its relevance is more pronounced. There is a need to lobby for the ACB to be able to stand on its own. This is with reference to an interview with the Communication Officer (Ndipita) referred to on page 77.

- There is need to upgrade staff qualifications in the Ministry of Agriculture so that they should effectively deliver in their roles. There is need to employ a lot more extension workers in the ministry to cater for the number of farmers that are available. This is with reference to an the interview with the Chief Communication Officer (Katunga) referred on page 77 and a study done by Emmanuel Kaunda of the University of Malawi, Bunda College of Agriculture (2011), which shows that currently there are 1,887 extension workers against 2880 posts leaving 993 posts vacant against 3 million farming households on page 75.
- There is need to buy new equipment for production and printing of publications at ACB which are supposed to be distributed to farmers everywhere in Malawi. Most of the machines are old and archaic. This is with reference to an interview with the Communication Officer (Ndipita) on page 77 as well as researcher's own observation and insight from experience working in the Department of Extension Service as a Communication Officer.
- ACB needs to be proactive to be able to show what it is capable of delivering in order to compete on the market so that other people can demand services from the branch. This can help in providing some income to the branch, which can be used in different areas of the branch including training needs of the members of staff. This is with reference to an interview with the Communications Officer (Ndipita) on page 77 as well as researcher's own observation and insight from experience working in the Department of Extension Service as a Communication Officer.
- The Ministry of Agriculture needs to look into the issues of mobility and funding at ACB. Communication is very expensive and usually the least budgeted for in most cases as such the branch fails to ably deliver because it does not have sufficient funds to carry out the tasks that have been assigned to it. This is with reference to an interview with the Communications Officer (Ndipita) on page 77 as well as researcher's own observation and insight from experience working in the Department of Extension Service as a Communication Officer. Chapota (2012) also observed this in the problem statement.
- There is need for a communication audit and also research to be periodically done by the branch. Activities are done basing on what the officers think and not on what farmers want; the approach is top down and thus missing the reality on the ground.



This is with reference to an interview with the Radio Officer (Mahiu) from NASFAM on page 81

- The civil servants are amongst the most poorly paid employees in the country as such most of them are usually busy with their personal businesses and looking for other means to earn a living as the salary alone is not enough to support their families. The government of Malawi therefore needs to revise the salaries of the civil servants so that they are motivated to carry out their work. This with reference from researcher's own observation and insight from experience working in the Department of Extension Service as a Communication Officer.
- Communication entails a lot, it is not only about radio, video and press releases, there is a lot that communication can do. There is need for both internal (within the organization) and external (with the farmers) communication to be at play. This goes down to even looking at the different structures that are in place at the work place for communication such as tea rooms where most internal communication is done. This is with reference to an interview with the Communications Officer (Ndipita) on page 78.
- ACB needs to be conducting periodic research on its programs. Research is also an important aspect of communication, which needs not to be overlooked because it is helpful in the evaluation of programs and also as a feedback mechanism system. It acts as a tool of measuring what kind of programs are working and which ones are not. This is with reference to an interview with the Radio Officer (Mahiu) from NASFAM on page 81.
- There is need to introduce a radio listening group in Mitundu, Chisamba so that the farmers can listen to radio programs and gain some knowledge even with the absence of their extension workers. This is with reference to the discussion and arguments which were raised in the report by Farm Radio Malawi on "Addressing information gaps in agriculture value chain: the role of radio programming. Proceedings of a 3<sup>rd</sup> annual farm radio symposium" (2011) on page 67.
- There is need to strengthen the District Agriculture extension system (DAESS) structure so that members of the stake holder panels, the extension workers, non-governmental organizations, the private sector (radio stations, seed companies, universities), farmer based organizations, and the public sector properly understand their different roles and be able to deliver. The Department of Extension Services therefore needs to conduct more sensitization trainings with all its stakeholders in the

DAESS structure so that they are taught on the different roles that they are supposed to play if good results are to be achieved. This is with reference to an interview with Kamwendo of the AEDC on page 88.

- Due to limitation of resources, the research only managed to analyze one impact area in the ASWAp on conservation agriculture but the researcher is aware that the program has been implemented in all the parts of the country. The researcher therefore recommends for further research to be conducted in ASWAp impact areas in order to analyze how communication under the ASWAp is being carried out. The results will then provide a basis for the implementation of a communication strategy of the ASWAp of which this research has started. This is with reference from researcher's own observation and insight from experience working in the Department of Extension Service as a Communication Officer.

## 6.0 CHAPTER SIX

### 6.1 Conclusion

This paper attempted to assess the communications modes of the ADP-SP under the ASWAp, which is an umbrella frame work for the implementation of agriculture programs in Malawi. To bring down this issue, the research looked at how communication of conservation agriculture in Mitundu was done by the Ministry of Agriculture through the Agricultural Communication Branch (ACB) which is the ministry's main communication arm.

Chapter one looked at the introduction and background of study, problem statement, the main objective and specific objectives of the study. The main objective of the study was to investigate how communication activities are carried out under the Agriculture Development Program Support Project (ADP-SP).

Chapter two reviewed both theoretical and empirical literature on development communication and agricultural communication. Literature reviewed included; Waisbord (2001)'s article titled "Family tree of theories, methodologies and strategies in development communication prepared for the Rockefeller Foundation"; "FAO (2011) expert consultation communication for development: meeting today's agriculture and rural development challenges: background paper"; *Development communication sourcebook: broadening the boundaries of communication* by Mafalopolos (2008); Kamlongera and Mefalopolus (2004)'s *Participatory communication strategy design handbook, information and communication technologies* and a paper by May et al (2007) titled "Agricultural development in Sub-Saharan Africa: transformation and employment generation, final framework paper prepared for the African Economic Research Consortium". Other works that have also been reviewed include; Nyambalo (2006)'s Master thesis from the university of Malawi on *Communicating treadle pumps in Malawi, Chikwawa and Salima*; Kambalame (2006)'s Master thesis from the university of Malawi titled *Communicating decentralisation in Malawi: a case of Zomba District Assembly*; Sturges and Chimseu (1996)'s article on "The chain of information

provision in the villages of Malawi”; and Kishindo (1980)’s PhD dissertation titled *Extension Agents in Agricultural Development: The case of Malawi*.

Chapter three discussed “diffusion of innovations” theory elaborated by Rogers (1983), which formed the basis of the research. The elements in the theory that were analysed according to Rogers (1983, p.10) include; innovation, communication channels, time and social system. The chapter also discussed the participation theory which the research made references to where applicable.

Chapter four looked at the research setting, design and methodology. The research was conducted in Lilongwe district, Mitundu area, Traditional Authority Chadza in Chisamba Village. The study was iterative, with each stage building on the previous one. It had a qualitative design to enhance triangulation of the data. The following methods were used to obtain the data: focus group discussions, key informant and in-depth interviews. The sample size comprised of 41 respondents.

Chapter five gave analysis of the findings. The data was analysed using the thematic areas that emerged during the cutting and sorting manipulative techniques as elaborated by Bernard and Ryan (2010). In addition to that, the data was also analyzed taking into consideration the four stages of Roger’s (1983) diffusion of innovation which according to Rogers (1983, p.10) are innovation, communication channels, time and social system. The communication modes that were used in the conservation agriculture project were categorized into interpersonal communication (Extension worker, lead farmer concept/demonstration blocks, village meetings, and field days), electronic media (radio) and print media (leaflets). Interpersonal communication emerged as one of the most effective methods used when communicating information to the farmers. Electronic communication is not a preferred method in Chisamba village although there are a few farmers (5 out of 30) who listen to the radio while print media is only fairly used by farmers who are literate.

Therefore an overall conclusion of the paper is that communication (whether print, electronic or verbal) plays a critical role in communicating agriculture messages and as such it needs to be taken into great consideration if development projects are to be successful. Instituting proper feedback mechanisms between the farmers and the Ministry of Agriculture is also another important element as it puts the ministry on track in terms of what famers need. Gender mainstreaming is another important element to be emphasized when communicating agriculture as both the female and male views and needs are crucial in the development of

programs. In addition to that, the involvement of other stake holders is also a very important element in agricultural communication. Stakeholders need to make sure that they work in a harmonized manner with the ministry of agriculture to avoid delivering conflicting messages to the farmers. Print media also plays a very crucial part in communicating to the farmers. When considering the type of print media to be used Mefalopolus and Kamlongera (2004 p.62) says it is important to take into consideration the education level of the community, their culture and the leaflet's application/technical use. This helps to properly communicate messages to the intended audience (Mefalopolus & Kamlongera, 2004 p.62)

## **6.2 Answers to the research questions**

### **6.2.1 To investigate how communication activities are carried out under the Agriculture Development Program Support Project (ADP-SP).**

Communication activities under the ADP-SP are carried out following guidelines of the Agriculture Communication Branch (ACB). These include interpersonal communication (communication with the extension worker and field days), print (leaflets, poster and magazines) and electronic media (radio). The ACB also outlines puppetry shows and the mobile van/yellow van as one of the ways messages are communicated to farmers. However, the research has discussed that the agriculture puppetry shows were only effective during the period 1965-1990 and farmers learnt a great deal from them. Currently the agriculture mobile van is no longer in operation. This is a missed opportunity and the ACB needs to consider re-introducing "yellow van" puppetry shows.

### **6.2.2 Examine how farmers receive messages on conservation agriculture under the Agriculture Development Program Support Project (ADP-SP)**

Farmers receive messages through interpersonal communication, which includes; communication with the extension worker, communication using the lead farmer concept/demonstration blocks, communication through village meetings and communication through field days. Farmers also receive messages through electronic media (radio) and print (leaflets).

### **6.2.3 To find out the type of communication channels that farmers are familiar with in conservation agriculture under the Agriculture Development Program Support Project (ADP-SP).**

The type of communication channels that farmers are familiar with include, interpersonal communication (communication with the extension worker, communication using the lead farmer concept/demonstration blocks, communication through village meetings) and communication through field days; electronic media (radio), print (leaflets, posters, magazines)

### **6.2.4 To assess the effectiveness of the Agriculture Development Program Support Project (ADP-SP) communication channels in conservation agriculture.**

The type of communication channels that were assessed includes; interpersonal communication (communication with the extension worker, communication using the lead farmer concept/demonstration blocks, communication through village meetings) and communication through field days; electronic media (radio) and print (leaflets).

Interpersonal communication was the preferred method for communicating information to the farmers. Agricultural messages were mainly gotten from the extension workers. However, there is a need to find ways to compliment the work of the extension workers because it is impossible to visit each farmer individually. Introduction of radio listening groups for the farmers would be an effective way to get messages through the radio.

Meeting at the demonstration plots was also reported to be one of the most effective ways of getting information about conservation agriculture because the farmers were able to see and discuss the reality on the ground. In addition to that, they were able to learn from one another as well as share experiences to apply in their gardens.

Village meetings were reported to be a good way of getting feedback from the farmers in terms of how they are progressing in their farms as people are able to express themselves and share ideas together with their fellow farmers and chiefs. It was also reported that the farmers get their information through field days. Field days are normally organized by the department

of extension services throughout the year to showcase different agriculture technologies, which also act as a learning point for the farmers.

The paper has discussed that electronic communication is one of the main communication channels used in agricultural communication in Malawi. According to a report; “Addressing information gaps in agriculture value chain: the role of radio programming. Proceedings of a 3<sup>rd</sup> annual farm radio symposium” by Farm Radio Malawi (2011) radio reaches a lot of farmers at once and in areas where there are no extension workers, farmers are still able to get agricultural messages through the agriculture radio programs. Farmers in Mitundu, Chisamba have not fully utilized radio listening because they do not have radio listening groups.

As regards to print media, the paper has discussed that the use of leaflets to communicate to farmers is only effective for those that are literate leaving out the farmers that have never gone to school.

#### **6.2.5 To investigate the expertise of the communicators on agricultural communication and their knowledge of conservation agriculture.**

The paper has discussed that the extension workers effectively communicate with farmers in Chisamba village. This has been confirmed through the different analyses that have been discussed in the study. However, the extension workers need to be properly trained in communication skills in order to effectively communicate the technical messages on conservation farming. Communication from extension workers has been established as the most preferred by farmers so it is important that they should have communication skills to work effectively

#### **6.2.6 To examine how the communication channels used in conservation agriculture has helped in the promotion of gender awareness issues.**

Gender mainstreaming was discussed to be a very important aspect when communicating agricultural activities because it accommodates views from both male and female farmers. This also helps in empowering women who have been sidelined in agricultural activities for so many years. The Department of Agriculture Gender Roles and Extension Support Services (AGRESS) in the Department of Agriculture Extension Services is taking a leading role in mainstreaming gender when communicating agricultural activities, including conservation

agriculture messages. As a result there is equal participation of both men and women farmers in farming activities in Chisamba. For example when they are choosing leaders for various committees they make sure that there is equal participation of both genders.

**6.2.7 To provide recommendations on a communication strategy that can enhance the implementation of a communication strategy for the Agriculture Development Program Support Project (ADP-SP).**

The thesis has managed to achieve this. The recommendations have been discussed at the beginning of chapter five





## 7.0 Bibliography

*Addressing information gaps in agriculture value chain: the role of radio programming. Proceedings of a 3<sup>rd</sup> annual farm radio symposium 23-24<sup>th</sup> November held at Malawi Institute of Management (MIM), Lilongwe Malawi (a report) by Farm Radio Malawi.* Retrieved April 18, 2013, from <http://www.farmradiomw.org/wp-content/uploads/2012/04/3rd-Farm-Radio-Symposium-Report.pdf>

*Agriculture Extension Policy.* (2000). Cited in <http://www.ifpri.org/sites/default/files/publications/ifpridp01171.pdf> on 25.04.2013

*Agriculture and consumer protection in Agriculture, conservation agriculture.* (2012). Retrieved March 22, 2012, from <http://www.fao.org/ag/ca/> on 22.03.2012

*Agriculture Gender Policy,* (2012). Ministry of Agriculture and Food Security, Lilongwe.

*Agricultural Development Program-Support Project (ADP-SP), project implementation manual,* (2008). Ministry of Agriculture Food Security, Lilongwe.

*Agriculture Sector Wide Approach-Support Project (ASWAp) progress report,* (2011). Ministry of Agriculture and Food Security, Lilongwe.

*Agriculture Sector Wide Approach (ASWAp) Malawi's prioritized and harmonized Agricultural Development Agenda Policy,* (2010). Ministry of Agriculture and Food Security, Lilongwe.

Agunga, R.A., (1997). *Developing the Third World: A communication approach.* Nova Science Publishers, Commack, New York.

Bessette, G., (2004). *Involving the Community, A Guide to Participatory Development Communication.* International Development Research Centre, Southbound, Penang.

Bernard, R.H & Ryan, W. G., (2010). *Analysing Qualitative Data: Systematic Approaches*. SAGE Publications, California.

Bryman, A., (2008). *Social Research Methods*. Oxford University Press Inc., New York.

Braun, D. H., Vogt, N., Baumann, T., Weidemann, D., & Dupree, P., (2001). *HIV/AIDS prevention in the agricultural sector in Malawi: a study on awareness activities and theatre* (Vol. 192). Humboldt-Universität zu Berlin, Seminar für Ländliche Entwicklung.

Chapota, R., (2012). *ASWAp diffusion and innovation strategy: a concept paper*. Ministry of Agriculture and Food Security, Lilongwe.

*CIA world fact book*. Retrieved April 28, 2013, from <https://www.cia.gov/library/publications/the-world-factbook/geos/mi.html>

*DAES Extension Concept – Policy Document*, (2000). Ministry of Agriculture and Food Security, Lilongwe.

Dzidonu, C.K., (2002). *ICT Policy Framework for Malawi*. International Institute for Information Technology. Retrieved October 2, 2012 from <http://www.sdn.org.mw/ict/framework-2002/>

*FAO expert consultation communication for development: meeting today's agriculture and rural development challenges: background paper*. (2012). Rome, Italy, 14-16 September 2011. Office of Knowledge Exchange, Research and Extension (OEK). Research and Extension Branch (OEKR). Retrieved October 28, 2012 from <http://www.fao.org/docrep/015/i2701e/i2701e.pdf>

*Global finance*. (2013). Retrieved April 28, 2013 from <http://www.gfmag.com/tools/global-database/economic-data/11934-richest-poorest-countries.html#axzz2RlcrjRNd>

*Guidebook for Decentralization and Local Governance*. (2013). Retrieved April 24, 2013, from [http://www2.gtz.de/urbanet/pub/GTZ-Guidebook\\_on\\_Decentralisation-en.pdf](http://www2.gtz.de/urbanet/pub/GTZ-Guidebook_on_Decentralisation-en.pdf)

Gumucio-Dagron, A., (2006). *The world is not enough – Sustainable communication for a sustainable planet*, keynote address presented at the World Congress of Communication of Development (WCCD), Rome, October 2006.

Info please (website) Retrieved April 28, 2013, from <http://www.infoplease.com/ipa/A0107747.html>

Inkeles A. & Smith D.H., (1974). *Becoming Modern – Individual Change in Six Developing Countries*. Harvard University Press, Cambridge, MA.

Kaunda, E., (2011). *National case study on advisory services*. University of Malawi-Bunda College of Agriculture. A paper presented at CTA on 15-18 November 2011 in Kenya, Nairobi.

Kambalame L., (2006). *Communicating decentralisation in Malawi: a case of Zomba District Assembly*. Chancellor College, Zomba.

Kamlongera, C., (1989). *Theatre for Development in Africa with Case Studies from Malawi and Zambia*. German Foundation for International Development, Bonn.

Kamlongera C & Mefalopolus,P., (2004). *Participatory Communication Strategy Design Handbook*. FAO, Rome.

Kishindo, P., (1980). *Extension Agents in Agricultural Development: The Malawi case*. Chancellor College, Zomba.

Lerner D., (1958). *The passing of traditional society: modernizing Middle East*. Free Press of Glencoe, New York.

*Malawi Growth and Development Strategy*. Retrieved April 25, 2013, from [http://www.psip.malawi.gov.mw/reports/docs/mgds\\_summary\(9priority\).pdf](http://www.psip.malawi.gov.mw/reports/docs/mgds_summary(9priority).pdf)

May, J. et al. (2007). *Information and communication technologies and Agricultural Development in Sub-Saharan Africa: transformation and employment generation. Final*

*Framework Paper prepared for the African Economic Research Consortium (AERC).*  
Retrieved October 22, 2012, from  
[http://www.aercafrica.org/documents/ict\\_project\\_working\\_papers/mayet\\_al\\_ictagriculturaldevelopmentinssa.pdf](http://www.aercafrica.org/documents/ict_project_working_papers/mayet_al_ictagriculturaldevelopmentinssa.pdf)

Mefalopolus, P., (2008). *Communication for development: meeting today's agriculture and rural development challenges, background paper, a development communication sourcebook: broadening the boundaries of communication by the World Bank.* The International Bank for Reconstruction and Development/The World Bank, Washington DC.

Melkote, S.R., (1991). *Communication for Development in the Third World.* Sage Publications, New Delhi, India.

*National Statistics Office in Malawi.* (2013). Retrieved April 18, 2013, from  
<http://www.nsomalawi.mw/>

*NASFAM overview (website)* (2013) Retrieved March 6, 2013, from <http://www.nasfam.org/>

Nyambalo, S., (2006). *Communicating treadle pumps in Malawi, Chikwawa and Salima.* Chancellor College, Zomba.

Koponen, J., (2000). *Rethinking development studies.* Retrieved March 22, 2013, from  
<http://www.eadi.org/programmes/dossiers/dossier-on-development-studies/dossier-devstudies-rethinking.html>

*Reaching the Vision: Analysis of Possible Options (Vision 2020 website.)* Retrieved March 22, 2013, from  
<http://www.millennium-institute.org/resources/elibrary/papers/MalawiVision.pdf>

Rogers E.M., (1983). *Diffusion of Innovation.* The Free Press, a Division of Macmillan Publishing Co., Inc. New York.

Patton M.Q. (1990). *Qualitative Evaluation and Research Methods*. SAGE Publications, Newbury Park, CA.

Sturges, P &G. Chimseu., (1996). *The Chain of Information Provision in the Villages of Malawi: a Rapid Rural Appraisal*. International Information and Library Review Vol. 28, p. 135–156.

Schramm, W., (1964). *Mass media and National Development, the Role of Information in the Developing Countries*. Stanford University Press, Stanford, California.

Schrøder, K., Drotner, K., Kline S., & Murray, C., (2003). *Researching Audiences*. Oxford University Press Inc., New York.

Waisbord, S., (2001). *Family tree of theories, methodologies and strategies in development communication* Prepared for The Rockefeller Foundation. Retrieved November 21, 2012, from <http://change.comminit.com/pdf/familytree.pdf>

## **7.1 Interviews**

Individual Interviews and Focus Group Discussions with farmers in Mitundu, Lilongwe, (2012).

Personal Interview with the District Agriculture Development Officer (DADO), Hastings Yoyam (2012).

Individual Interview the Chief Agriculture Communication Officer, Edward Katunga (2012).

Individual Interview with Communication Officer, Mark Ndipita (2012).

Individual Interviews with Agriculture Extension Officers, Steven Kamwendo, H.G Chagoma, (2012).

Individual Interview with Andrew Mahiu, Radio Officer, NASFAM (2012).

Individual Interview with Getrude Kambauwa, Land Resources Officer (2012).

Individual Interview with Boaz Mandula, Agriculture Gender Extension Officer (2012).

Interview with Interview with Ketrina Haddon, (2012).

Interview with Masautso Maumbila, (2012).

Interview with Elemita Yosefe (2012).

Interview with Emily Fetison (2012).

Interview with Enita Chimwendo, Elemita Makswel (2012).

Interview with Mrs Tobias Banda (2012)

Interview with Chief Chisamba (2012)

**8.0 Appendix 1: Farmers in a focus group discussion**



**8.1 Appendix 2: Farmers in a focus group discussion**





**8.2 Appendix 3: The resource center of Chisamba village**



**8.3 Appendix 4: One of the farmers on his farm (practicing conservation farming)**



## **8.4 Appendix 5: Question guide for farmers and key informants**

### **MAIN OBJECTIVE**

To investigate how communication activities are carried out under the Agriculture Development Program Support Project (ADP-SP)

Kufufuza kuti uthenga umayenda bwanji mu pologalamu ya Agriculture Development Program Support Project (ADP-SP)

1. How is any communication done in your area? (AEDO, AEDC, KEY INFORMANTS, FARMERS)

Kodi mauthenga amaulutsidwa bwanji mudera lanuli?

2. What is the structure of communication in the Department of extension services at the district level/at the EPA level?(DADO,AEDO,AEDC)

Kodi ndondomeko yakaulutsidwe kamautha muagriculture ndiyotani?

3. What structures have been put in place to ensure that the system is followed?

Ndindondomeko zanji zomwe zinakhazikitsidwa kuti mauthenga amenewa adziyenda bwino?

4. How are communication activities communicated to farmers? (KEY INFORMANTS, AEDO, AEDC), DADO)

Kodi mauthenga mu agriculture amayenda bwanji mudera lanuli?

### **SPECIFIC OBJECTIVES**

1. To examine how the activities of the Agriculture Development Program Support Project (ADP-SP) are communicated to farmers

1.1 How are activities of the Agriculture Development Program Support Project (ADP-SP) communicated to farmers (especially on CA)? ((FARMERS, AEDC, AEDO,CACO, LANDRESOURCES, ASWAP sp coordinator)

Kodi alimi amamva bwanji mauthenga agriculture makamaka zokhuzana ndi CA?

1.2 What was the initial plan for communicating CA activities? How are they being communicated to now? ( AEDC, AEDO,CACO, LANDRESOURCES, ASWAP sp coordinator)

Kodi ndi ndondomeko zotani zimenezinakhazikitsidwa kuti uthenga wa CA uzifalitsidwa?kodi ndondomekozi zikutsatidwa?

2. To find out the types of communication channels that farmers are familiar with under the Agriculture Development Program Support Project (ADP-SP)

2.1 What are the types of communication modes that farmers are familiar with? posters, leaflets, jingles, radio programs, drama, mobile van, interpersonal communication?

Kodi ndi njira zANJI zofalitsila uthenga zimene alimi amadziwa makamaka pankhani yokhuza CA? (leaflets, jingles, radio programs, drama, mobile van, interpersonal)

3. To assess the effectiveness of the Agriculture Development Program Support Project (ADP-SP) communication channels

3.1 How do the farmers assess the different communication modes described above?

Kodi ndi njira zANJI zakafalitsidwe kauthenga zimene alimi amasangalasida nazo?

3.2 Did they receive any training e.g on interpersonal communication?

Kodi alimi analandilako ma raining ena alionse okhuzana CA?

3.3 How do they interpret the messages on the posters? leaflets? or radio did it help?

Kodi mauthenga amaleaflets/posters/radio alimi amaumva bwanji?

3.4 How do you ensure that the different types of communication modes are being effective? Is there a Feedback system? how many times does feedback happen? (CACO, LANDRESOURCES, KEY INFORMANTS, AEDO, AEDC, FARMERS)

Kodi ndi njira zANJI zimene zinakhaikitsidwa kuti madandaulo/nkhani zabwino za alimi zizimveka?

4. To investigate the expertise of the communicators on agricultural communication and knowledge of conservation Agriculture (AEDO and AEDC)

4.1 What qualifications do you have? Do you need any training on how to communicate better with the farmers in explaining for example the posters, leaflets or radio programs?

4.2 Are there any radio listening groups?

Kodi muli ma radio listening groups ena alionse

4.3 If yes, how does it operate?

Ngati yankho lili eya amayenda bwanj magulu amenewa?

4.4 Do they discuss CA programs?

Amakambirana za CA?

4.5 What are the success stories?

Alimi amene anachita bwino ndi angati ndipo nkhani zawo ndi zotani?

4.6 How do you ensure that those communicating to farmers have the expertise? (LAND RESOURCES, CACO, ASWAP sp coordinator?)

5. To examine how the communication channels have helped in the promotion of gender awareness issues.

5.1 How is gender mainstreamed when communicating Agricultural activities? (key informants, AEDO, AEDC, DADO, CACO, LAND RESOURCES, ASWAP-sp coordinator, farmers)

Kodi mauthenga agender aamafalitsidwa bwanji kwa alimi?

5.2 Have you ever received any gender related messages when receiving Agricultural messages? (FAMERS, AEDC, AEDO,CACO, LANDRESOURCES, ASWAP sp coordinator)

Kodi munalandilako mauthenga enaalionse okhuzana ndi za gender?training, lefalets etc

5.3 If yes how did you receive the messages? (Interpersonal training? posters? leaflets? mobile van? (FAMERS, AEDC, AEDO,CACO, LANDRESOURCES, ASWAP sp coordinator)

Uthengawu unalnezedwa bwanji?

5.4 Were the messages effective? (FAMERS, AEDC, AEDO,CACO, LANDRESOURCES, ASWAP sp coordinator)

Kodi mauthengawa anali opindula kulingalira ndi ulimi wanu?uthengawu unakuthandizani bwanji paulimi wanu?

6. To provide recommendations on a communication strategy that can enhance implementation a communication strategy that of the Agriculture Development Program Support Project (ADP-SP).

6.1 What are some of the challenges with communicating CA activities or the structure of communication?

Ndizovuta zotani zimene mumakumana nazo polandila uthenga wa CA?

6.2 How can it be improved?

Kodi zovuta zimenezi zingakhonzeke bwanji?

## 8.5 Appendix 6: Field Work Introductory Letter (UiO)

**To Whom It May Concern:**

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**Date:** Monday, 4 June 2012

**Your ref.:**

### Letter of Recommendation

Ms. Upile Misyenje Ndilowe is a Master student in the Department of Media and Communication at the University of Oslo. I serve as her supervisor, and I find that she has chosen a very interesting and relevant topic for her dissertation namely:

"Development of a communication strategy in the Malawi's Agriculture Sector Wide Approach (ASWAp)."

Obviously in order to undertake such a study it is essential that Ms. Ndilowe has access to information that will provide her with as much background knowledge as possible.

I hereby ask you to be so kind as to help Ms. Ndilowe in acquiring the assistance that she may need during her field-work in Malawi June 2012 till March 2013.

Yours Sincerely



Helge Rønning

Professor

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