



# **ADDIS ABABA UNIVERSITY**

## **College of Humanities, Language Studies Journalism and Communication**

**By**

**SamrawitAlayouKidanewold**

**June 2019  
Addis Ababa**

**Assessing the Communication Strategies in  
Agricultural Research: with Special Emphasis on  
Moret -Jiru Woreda**

**By  
SamrawitAlayouKidanewold**

**Thesis submitted to College of Humanities, Language  
Studies, Journalism and Communication in partial  
fulfillment of the requirements for a Master of Art Degree in  
Journalism and Communication**

**Advisor: - ArkaAbota (phd)**

**June 2019  
Addis Ababa**

# DECLARATION

This is to certify that the thesis prepared by **samrawitAlayou** entitled **Assessing the Communication Strategies in Agricultural Research: with Special Emphasis on Moret -Jiru Woreda** and submitted in partial fulfillment of the requirements for the degree of Master of Arts in Journalism and Communication, complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

**By:-SamrawitAlayou**

**Approved by Board of Examiners**

**Advisor.....Signature.....Date.....**

**Examiner..... Signature.....Date .....**

**Examiner.....Signature.....Date.....**

## ***Abstract***

*Agricultural extension communication efforts in Ethiopia are criticized for not helping bring notable agricultural development, due to, among the main reasons, faulty communication approaches along the research extension- farmer linkage. This qualitative study was an attempt to examine the approaches and acceptability of agricultural communication practices and strategies for agricultural development in Moret-Jiruworeda, (Mnagudo, Gerba and Woyramba) Kebeles. The revealing data were collected through four focus group discussions held with farmers and DAs in Moret-Jiruworeda,(Mnagudo, Gerba and Woyramba) Kebeles. And nine in-depth interviews within four Researchers and two PR experts from ministry of agriculture (MoA) and Debrebirihan agricultural research center (DBARC), three Journalists who produce agricultural programs for Ethiopia radio, Fana FM and Addis Zemen newspapers. Results showed that agricultural communication strategy in use for sharing or exchanging agricultural extension messages is not yet applied. Group and one to five communication methods are more acceptable approach on the stated area. The approach was identified largely non-participatory and the community perceives public relation experts as a political practitioner. Farmers also perceive extension workers as political cadre and tax collectors. mass media methods of communication also almost nil on the woreda; in which programs or texts are shaped by journalists with little involvement of agricultural experts on this causeFarmers put down all agricultural activities under political propaganda of government. Ministry of agriculture (MoA) and Debrebirihan agricultural research center (DBARC), have not agricultural communication strategy. The organization without integration and communication strategy they would not achieve the proposed goal become successful. This study also recommends that designing national agricultural communication strategy having implications for future interventions and researches are forwarded.*

## **Acknowledgment**

Firstly, I would like to thank the Lord, God almighty for helping me reach this far. All glory and praise be unto Your name. I would like to thank my Supervisor Dr. Arka Abota, who supported me throughout my thesis and provided me with guidance in academic writing by helping to bring out the best in me even when it was hard. I greatly appreciate your knowledge and input in this work.

Most importantly, I want to express my heartfelt gratitude to all my family members who believed in me to pursue a Master degree. Very special thanks go out to my brothers Gossaye Feyssa, Daneal Zemichael and Addissu Reta. I cannot express how much I appreciate your moral support and I thank also all of my friends too.

I am deeply grateful to Abiy Legesse, Director of DBARC, journalists, DAs and farmers of Moret-Jiruworeda district who responded to all questions with patience and gave information for this research work.

I would like to convey my sincere appreciation to the following organization: MoA, DBARC and Moret-Jiruworeda. I also recognize the support of the Ethiopian Institute of Agricultural Research (EIAR) granted me paid study leave with a research funding. I thank both institutions.

## **List of Acronyms and Abbreviations**

<b>ADLI</b>	Agricultural Development Led Industrialization
<b>ANRS</b>	Amhara National Regional State
<b>CPP</b>	Comprehensive Package Project
<b>CSA</b>	Central Statistics Authority
<b>DA</b>	Development Agent
<b>DBARC</b>	Debrebrihan agricultural research center (DBARC)
<b>EIAR</b>	Ethiopian Institute of Agricultural Research
<b>EPRDF</b>	Ethiopian People’s Revolutionary Democratic Front
<b>FDRE</b>	Federal Democratic Republic of Ethiopia
<b>F GD</b>	Focus group discussion
<b>GDP</b>	Gross Domestic Product
<b>ICT</b>	Information communication technology
<b>IN</b>	in-depth interview
<b>MEDaC</b>	Ethiopian Ministry of Economic Development and Cooperation
<b>MOA</b>	Ministry of Agriculture
<b>MPP</b>	Minimum Package Project
<b>MoFED</b>	Ethiopian Ministry of Finance and Economic Development
<b>MoI</b>	Ethiopian Ministry of Information
<b>MoRAD</b>	Ethiopian Ministry of Rural and Agricultural Development
<b>Np</b>	No page
<b>PASDEP</b>	Plan for Accelerated and Sustained Development to End Poverty
<b>PR</b>	Public relation Experts
<b>Principals</b>	Researcher, DA’s and Farmers
<b>PRSP</b>	Poverty Reduction Strategy Paper
<b>SARC</b>	Sheno Agricultural Research Center
<b>SDPRP</b>	Sustainable Development and Poverty Reduction Program
<b>UN</b>	United Nations

## Definition of Terms

**Adoption** a decision to make full use of an innovation as the best course of action available (Rogers, 2003: 177).

**Agricultural information** this is the any information from Agricultural sector in the form of news, reports, and messages consumed by farmers.

**Communication approaches** are ways of using communication techniques, methods and media to address specific issues in the most effective way (Mefalopulos and Kamlongera, 2004: 21).

**Communication channel** is the type of media through which Agricultural information is sent and received to farmers in Moret-Jiruworeda.

**Debo** is one of a traditional social structure that's a group of people works together team up on harvesting time. Recently Farmers show the result on the ground and next time they adopt as well.

**Disseminate** To spread or give out something, especially news, information, ideas, etc., to a lot of people.

**Extension** is a service or system which assists farm people, through educational procedures, in improving farming methods and techniques, increasing production efficiency and income, bettering their levels of living and lifting the social and educational standards of rural life", Maunder (1973:103).

**Innovation:** an idea, practice, or object perceived as new by an individual or unit of adopters (Rogers, 2003: 36).

**Mass media channel** refers to radio, television, newspapers in sharing and exchanging messages or information with wide and large audiences.

**Mahiber** A traditional social structure in a given village previously for handling religious practice but has recently started engaging in development activities as well.

**Variety** A group of organisms within a species that differ in trivial ways from similar groups

# Table of Contents

<i>Abstract</i> .....	i
Acknowledgment .....	ii
List of Acronyms and Abbreviations .....	ii
Definition of Terms.....	iv
Table of Contents .....	v
CHAPTER ONE .....	1
1. Introduction.....	1
1.1 Background of the study .....	1
1.2 Statement of the Problem.....	3
1.3 Objectives .....	5
1.3.1 General objective .....	5
1.3.2 Specific objectives .....	5
1.4 Research questions.....	5
1.5 Significance of the study .....	6
1.6 Scope of the study .....	6
1.7 Limitation of the study.....	7
1.8 Stricture of the study.....	7
CHAPTER TWO .....	8
Review of Related Literature .....	8
2.1 Concept of Agricultural Communication.....	8
2.1.1 Diffusion of Innovations Theory.....	9
2.1.2 Agricultural Communication strategies .....	11
2.1.3 Role of Communication Channels to Disseminate Agricultural Information.....	12
2.1.4 Sources of agricultural knowledge and role of information for Improving Production	13
2.1.5 Factors Affecting Dissemination of Agricultural Information.....	14

2.1.6 Top-down, communication approaches .....	15
2.1.7 Participatory communication approaches .....	16
2.1.8 Group communication methods .....	16
2.2. Over view of Agriculture in Ethiopian .....	16
2.2.1 Agriculture in the Imperial Periods (1945-1974) Land reform policies .....	16
2.2.2 Agricultural Policies and Strategies.....	18
2.2.3 Agriculture in the Socialist Periods (1975-1991).....	18
2.2.4 Peasant Associations and Rural Development.....	18
2.2.5 Cooperatives and State Farms.....	19
2.3 Agriculture Development Led Industrialization (ADLI) .....	20
CHAPTER THREE .....	23
Research Methodology and Design .....	23
3. Introduction.....	23
3.1. The study Area.....	23
3.2 Research Design.....	26
3.3. Sources of data and data collection tools .....	26
3.4. Secondary source of data .....	26
3.5. Primary source of data .....	27
3.5.1. Primary field data gathering in Moret-Jiru district .....	27
3.5.2. Focus group discussions .....	27
3.5.3. Interviews.....	27
3.6. Data sampling and sampling method.....	28
3.7 Data analysis .....	29

CHAPTER FOUR.....	30
Data Presentation, Analysis and Findings.....	30
4.1 Designing Communication Strategies, Implementation and Principals Linkage.....	30
4.2 Acceptable Approaches and Language Usage .....	38
4.3 Access to and Use of Media.....	41
4.4 Factors affecting agricultural information dissemination .....	44
CHAPTER FIVE .....	50
Conclusion and Recommendations.....	50
5.1 Conclusion.....	50
5.2 Recommendations.....	52
REFERENCE.....	53
Annex.....	60

# CHAPTER ONE

## 1. Introduction

### 1.1 Background of the study

Ethiopia is the second most populous country in Africa, with an estimated population of more than 102.3 (World Population Review 2016: NP). The country's economy mainly depends on agriculture. This particular sector determines the growth of all other sectors and consequently the whole national economy. It constitutes over 50% of the gross domestic product (GDP), accounts for over 85% of the labor force and earns over 90% of the foreign exchange. On average, crop production makes up 60% of the sector's outputs, whereas livestock accounts for 27% and other areas contribute 13% of the total agricultural value added. (AtsbahaandTessema, 2012:36)

The sector is dominated by small-scale farmers who practice rain-fed mixed farming by employing traditional technology, adopting a low-input and low-output production system. The land tilled by the Ethiopian small-scale farmer accounts for 95% of the total area under agricultural use, and these farmers are responsible for more than 90% of the total agricultural output (AtsbahaandTessema2012:36).

Ethiopian agriculture has been suffering from various external and internal problems. It has been stagnant due to poor performance as a result of factors such as low resource utilization; low-tech farming techniques (e.g. wooden plough by oxen and sickles); over-reliance on fertilizers and underutilized techniques for soil and water conservation; inappropriate agrarian policy; inappropriate land tenure policy; ecological degradation of potential arable lands; and increases in the unemployment rate due to increases in the population. (Haile 2001:45-64)

For over the past many years, Ethiopian farmers practiced subsistence farming. The farming methods in the country are still traditional; farmers in many areas do not have the option of using new, higher yielding varieties and some modern inputs, primarily chemical fertilizers. (Habtemariam1997:30),and (Belay2003:50). In this case, agricultural information is vital to accelerate access to information and communication strategies in order to support knowledge sharing and make it accessible to the targeted populations in the right time.

In this regard, communication is important to boost transfer of scientific and technological information from the agricultural research institutes to farmers. To improve the productivity of the agriculture sector, Ethiopia designed the economic strategy called Agricultural Development Led Industrialization (ADLI), which has been seen as a long-term strategy to achieve faster growth and economic development by making use of technologies that are labor intensive and land augmenting, such as fertilizer, improved seeds, and other cultural practices (FDRE-MoFED, 2002:135). The main objective of ADLI is to achieve more growth in the peasant agricultural sector productivity and thereby improving a living standard of the rural population. Moreover, (Worku 2000:5-8) has reported that ADLI is largely based on expanding agricultural production to generate income for the people.

In order to achieve the plan mentioned above, using effective way of communication in disseminating agricultural information to farmers is important. Communication channels are vehicles through which information is transferred or with relevance, timelessness, accuracy, cost effectiveness, reliability, usability, exhaustiveness and aggregation level (Tucker and Napier 2000:297-313). Efficiency of any agricultural technology generated and disseminated depends on effective communication which is crucial for the adoption process (Oladele1999:141).

Modern communication channels include extension services and mass media while traditional channels include interpersonal channels such as farmers' own experiences, family members, friends and farmers' neighbors (Boz and Ozcatalbas 2010:980-987). Communication can also play a vital role in the adoption of improved technologies. The delivered information enables farmers to improve on their agricultural production and marketing their produce (Ajayi and Gunn2009:66-72).

Therefore; this study want to assess the communication strategies used by agricultural organizations and development agents among farmers in Moret-JiruWoreda which is administration found in 200 km north-west of Addis Ababa. It will also examine the effectiveness of communication channels used to deliver information in relation with agricultural information to farmers.

## **1.2 Statement of the Problem**

Ethiopian agriculture is dominated by subsistence, low input-low output, rain fed farming system. The use of chemical fertilizer and improved seeds is quite limited despite Government efforts to encourage the adoption of modern, intensive agricultural practices. (MoA and FDRE 2010:22).

Most Ethiopian farmers are practicing lifelong traditional farming. And they are facing a lot of challenges, including the low life expectancy because of food problems hunger and poverty. The agricultural mechanism and productivity are the same all the time. The farming methods in the country are still traditional; farmers in many areas do not have the option of using new, higher yielding varieties and some modern inputs, primarily chemical fertilizers (Belay2002:201-210).

(Belay 2003:50) Ethiopian agriculture is characterized by low productivity and over the last two decades it has been unable to produce sufficient quantities to feed the country's rapidly growing population. (Belay2003: 24) indicated that “different extension approaches have been planned and implemented without the participation of the people they are meant for. Information and messages about new and improved agricultural technologies including inputs and farming practices are not appropriately communicated to users, who mainly are subsistent farmers”. These “farmers are not often informed about the availability of technologies and they stick to their age-old practices”.

Up to the researcher’s knowledge, farmers in the study are not aware enough about modern agriculture. On this regard, farmers are fear to adopt considerable technological change following the generation and transfer of modern high-yielding, disease-resistant and drought-tolerant crop varieties and increased use of chemical fertilizer. Imposing the assumption of homogenous technology and using a single combined production function would thus be unfortunate and misleading. The generation and dissemination of new technology/knowledge has a fundamental impact on the ways in which society develops and progresses (Clark, et-al. 2011:29-52).

The researcher observed that farmers not willing to adapt information and agricultural technology that would boost productivity. Due to this reason, the farmers did not utilize selected seed for desired purpose and sell it for other livelihood consumption. Lack of effective communication and advocacy strategy with the principals together with other contributing factors have brought these challenges, while information materials are made available and a number of communication activities are now being undertaken. There is not clear integration documented communication plan or blue print that guides all communication actions and decision. (Carter 1999:464-467) explain this how communication of research findings should done as it should pass in the process of interpreting or translating complex research findings into a language, format and context that non-experts can understand, such that unlike marketing and promoting a product or service, raw research outputs transforms into something that addresses the expressed needs of beneficiaries.

Hence, there is a need for a mechanism that would bring together these communication efforts into an integrated and holistic approach. This is true that the generation, dissemination and utilization of agricultural technology/knowledge play a critical role in promoting economic growth, food security and poverty alleviation in the developing world provided that the availability of well-funded and staffed agricultural research system (Flaherty, et al. 2010:: NP).

Therefore, existing technologies need to be disseminated to the farming audience. Extension agents are expected to carefully adapt communication strategies and channels to each local situation to ensure that proper communication activities are implemented during the project formulation, to ensure full, conscious participation of all likely stakeholders (Santucci,2005:28). Effective communication between change agents and researchers is essential for increasing agricultural production through the use of improved technologies. Communication channels are pathways through which information or messages are transmitted to an audience or receiver.

Poor communication linkage between different principals and unstated information flow between researcher's extension agents and farmers pay a lot for Ethiopian agricultural sector. One of the most inhibiting forces to successful development is lack of effective communication within and between different actors (Robbins 1992: 310).

Therefore, this study assesses the agricultural communication strategy in the study area for improving agricultural productivity and sustainable development through effective communication system. It also examines communication channels and factors affecting that information dissemination process.

## **1.3 Objectives**

### **1.3.1 General objective**

The main focus of this paper is to assess the communication strategy used by agricultural organizations and development agents to implement technological innovation.

### **1.3.2 Specific objectives**

In order to achieve the general objective, the study has the following specific objectives:-

1. To analyze the types of communication strategies that exists between researchers, extension workers and farmers.
2. To examine which model of the communication approaches are more acceptable to farmers in Moret-Jiruworeda?
3. To pinpoint how much the communication strategies implemented by agricultural researchers and agricultural extension agents are participatory and effective to achieve the proposed goal.
4. To investigate factors affecting dissemination of agricultural information between researchers, extension agents and farmers.

## **1.4 Research questions**

1. What are the communication strategies/approaches that are practice in Moret-Jiruworeda to communicate agricultural information to farmers through extension workers?
2. Which types of communication approaches are more acceptable to farmers in the selected woreda?
3. How much the communication strategies implemented by agricultural researchers and agricultural extension agents are (participatory and effective to achieve the proposed plan?)

4. What factors are affecting agricultural information dissemination and sharing between researchers, extension agents and farmers?

## **1.5 Significance of the study**

Theoretically and practically, the result of this study would benefit agricultural organizations especially Ethiopian Agricultural Research Development Institute, Ministry of Agriculture, farmers, stakeholders as well as development agents. It would also help to identify gap of communication strategies/channels among development agents and farmers of Moret-Jiruworeda in disseminating technological information.

It is believed that the study would help to indicate communication strategies to be introduced to policy makers, scientists, researchers, agricultural experts, farmers, pastoralists, agro-pastoralists and other stakeholders.

This study also expected to benefit researchers, stakeholders, extension agents and farmers through pointing out the strength, weakness and recommendations for improving the existing communication strategy and achieve sustainable agriculture development in the specific area.

The researcher observed that this topic of research is not conducted in Moret-Jiruworeda yet. Therefore, this study is expected help farmers' community living in the woreda and other researchers for further study and uses it as a reference.

## **1.6 Scope of the study**

Given the shortage of time and resources, the research was limited to studying approaches and acceptability of communication strategy for agricultural development in three rural kebeles of Moret-Jiru woreda, North shoa. The kebeles are Woyramba, Mangudo and Gerba all located around the suburbs of Enewary town. Qualitative data was collected from a total of 28 people of whom 18 are farmers. Data was collected through four focusgroup discussions (FGD) and nine in-depth interviews.

## **1.7 Limitation of the study**

This study is limited to Moret-Jiruworeda. The fact that the study focused only Moret-Jiruworeda results cannot be generalized to other neighboring woreda of North Showa zone. The study area is far from 200 km from AddisAbaba. On this circumstance, lack of finance and time was challenged the researcher for including considerable number of Weredas.

## **1.8 Structure of the study**

This study contains five chapters. The first chapter deals with the background information. Under this section, statement of the problem, research questions and objectives of the study, significance of the study, delimitation of the study, limitation of the study, Acronyms and the study area was presented.

The second chapter validates review of the related literature. The third chapter will focus on research design and methodology such as sampling techniques, data gathering methods and instruments including procedure of data gathering and method of data analysis. The fourth chapter deals with data presentation, analysis and dissection. Finally, the fifth chapter will present conclusion, and recommendations.

## **CHAPTER TWO**

### **Review of Related Literature**

#### **2.1 Concept of Agricultural Communication**

The word communication is derived from the Latin word, *commune* is, which means common. The definition underscores the fact that unless a common understanding results from the exchange of information, there is no communication. Hundreds of explicit and implicit definitions of communication have been published in the communication and related literatures for use by scholars and practitioners trying to describe, predict, and understand communicative phenomena. These definitions vary around the common language definitions, with variations depending on individual scholarly interests and general scholarly trends.

The diverse definitions of communication offered by (Hauser 1997: 7) serve as a representative, albeit small, sample of ideas about communication from a wide range of disciplines. Of seven definitions provided by Hauser, three definitions of communication place communication in the context of humans or organisms, while a majority mentions the effect of a message on its recipient.

As to (Keyton 2011:59), communication can be defined as the process of transmitting information and common understanding from one person to another. According to Sanchez & Guo (2005:50-57), fundamental and vital to all administrative functions, communication is a means of transmitting information and making oneself understood by another or others.

Agricultural communication is therefore important element in agricultural and rural development. According to (Burnett & Tucker 2001:1-22), the profession of agricultural communications has transitioned from public information dissemination to a highly competitive industry, requiring professionals to understand business, journalism, and farming practices. Budak and Yurdakul (2004:215) concur, adding that the capability of farmers is a fundamental indicator of the level of the agricultural sector's efficiency, productivity, development, and sustainability.

In such a context, the quality of information as well as the level of organization in the agricultural sector plays a crucial role. Thus, Oduwole and Okorie (2010:10-12) argued that information plays a key role in agricultural development. Its effective communication helps to facilitate mutual understanding between farmers, agricultural scientists, and agricultural extension workers. They also go on to suggest that the methods that are used to communicate are crucial in providing farmers with the necessary agricultural information in order for them to make informed decisions.

### **2.1.1 Diffusion of Innovations Theory**

Propounded by (Rogers1995: 25-38), diffusion of innovations is a means of engaging in behavior science research, especially with regard to technology changes in the field of agriculture. A spin-off of the two-step flow model, which is “mainly concerned with how an individual receives information and passes it along to others,” the process of diffusion “concentrates on the final stage of the adoption or rejection of an innovation” (Severinet.al 1992:198).

Eventually, diffusion of innovations theory became a model for evaluating changes in developing cultures. Notwithstanding its uses in these disciplines of study, its use in this study is based purely on its original form as promulgated by Rogers, and as “adopted” and applied by marketers and the media.

In all cases where diffusion of an idea or message takes place, there is communication in one form or another. For example, a company that wants to communicate information about its products, will most likely diffuse that information through the media in order to let potential users (farmers) know the products exist. The message will also provide information on what the products do, that they do it better than other products, and for a reasonable price. So, diffusion is a special type of communication, in which the messages are about a new idea. This newness of the idea in the message content gives diffusion its special character. The newness means that some degree of uncertainty is involved in diffusion (Rogers 1995: 25-38).

For instance, the nature of the information disseminated makes the diffusion process less uncertain for the recipient of the message. “A technological innovation embodies information

and thus reduces uncertainty about cause-effect relationships in problem-solving” (ibid). Therefore, communication can be in the form of long or short-range, planned media messages, seminars, classrooms, formal or information gatherings, brochures, newsletters-any method that gets the information to the appropriate social system.

Diffusion is a kind of social change. It is the process by which alteration occurs in structure and function of a social system. When new ideas are invented, diffused and adopted or rejected leading to certain consequences social change occurs. (Rogers 2003:138) stated that there is a need to adopt new innovations as soon as possible, especially when the innovation impacts a societal problem or an area of high priority. Consequently, innovations in communication technology have impacted both secondary and post-secondary curricula.

According to (Rogers2003:172), many innovations require a certain period of time before becoming adopted by wider population/users. Problem that arises is how to shorten this period. (Rogers 2003:143), argue that diffusion is the process in which an innovation is communicated through certain channels over time among the members of a social system. It is a special type of communication, in that the messages are concerned with new ideas.

The problem of diffusion and implementation of innovations in agriculture should not be considered simplistic, so one would possibly thought that the process of diffusion and implementation of innovation will take place successfully if there are sufficient financial resources, agricultural experts, awareness of adopters, access to innovation etc. In the last century, the experiences of many countries (particularly less developed and developed ones) have often proved unsuccessful in modernization of agriculture and rural development. Although the activities were (sometimes) carefully prepared, generously financed and supported otherwise by the governments of these countries and influential international organizations, the expected outcome haven't occurred.

### **2.1.2 Agricultural Communication strategies**

According to (Staatzet.al 2008:1), increasing agricultural productivity is a major challenge in Sub-Saharan Africa (SSA), where 62% of the population (excluding South Africa) depends on agriculture for their livelihoods. Since the 1960s, agricultural production in SSA has failed to keep up the pace with population growth (Benin 2006:217).

Improving the productivity, profitability, and sustainability of smallholders farming is, therefore, the main pathway to get out of poverty. It is widely argued that achieving agricultural productivity growth will not be possible without developing and disseminating improved agricultural technologies that can increase productivity to smallholder agriculture (Asfaw, et al.2012:283-295).

However, the public needs to understand the impact and role that agriculture plays in their lives each and every day. On top of the rise of agricultural illiteracy with the current population, according the Food and Agriculture Organization of the United Nations (FAO, 2009:6), the world population is expected to increase to around 9 billion people by 2050 and the agriculture industry must work to feed all the new people.

Food productions will have to be increased by seventy percent to feed the additional 2.3 billion people to come. On top of this, globally the nations are already fighting poverty and world hunger, all while using natural resources that are becoming scarce (FAO2009:18). The public needs to be better educated on the importance of agriculture. It is also important for the public to understand what the demands on the agriculture industry and what it has to accomplish over the next few decades to keep up with the growing demands of food because of the increasing population. A better-educated public can hopefully be achieved by increasing the communication between producers and consumers.

According to (Santucci2005:4), strategic communication is a comprehensive and holistic concept. It includes all the activities needed for identifying and assessing critical issues, designing and implementing appropriate strategies, and monitoring and evaluating the results. It

is an active and empowering solicitation of the stakeholders' perspective, ensuring that mechanisms are in place for a two way flow of information.

A strategic communication approach does not add costs to the project cycle, at least not in the long run, but rather it reduces the costs of useless, often unplanned communication activities and, most importantly, ensures that the project is designed with the consensus of a majority of stakeholders, that its goals are shared, and that its implementation is successful (ibid)

### **2.1.3 Role of Communication Channels to Disseminate Agricultural Information**

Communication plays a major role in human development especially in agriculture. Ethiopia has five major types of media channels; television, radio, newspapers, mobile phones and internet. Mass media plays a great role in rider of agricultural information in the shortest possible time over a large area (Tadesse 2008:171). Mass media is particularly effective in making farmers aware of new technologies. And also multiple dissemination channels of information need to be used to deliver relevant information to farmers. Farmer's access to different information channels at various stages helps them to get information about improved technologies and enhance the adoption of new innovations.

Channels of communication are important in conveying information and creating awareness or change in cognitions. (Tobon2010), cited in (Petronila2015:33). Communication channels provide information to a social system with the purpose to influence the knowledge and assessment of the innovation. Mass media is often more effective in creating awareness of an innovation, whereas personal contacts are more effective in forming an opinion about a new idea.

Knowledge and information are basic ingredients for increased agricultural production and productivity. Access to Agricultural information is therefore one of the balance factors that contribute towards increased food production. Effective communication will help facilitate mutual understanding among farmers, agricultural scientists and extension workers. In addition agricultural information and communication will help farmers to access agricultural information from credible sources through the right communication channel by their own participation and motivation. (Ibid)

(Waisbord2001: NP) Communication is the articulation of social relations among people. People should not be forced to adopt new practices no matter how beneficial they seem in the eyes of agencies and governments. Instead, people needed to be encouraged to participate rather than adopt new practices based on information.

#### **2.1.4 Sources of agricultural knowledge and role of information for Improving Production**

(Tadesse2008:7) defined agricultural information as the various sets of information and messages that are relevant to agricultural production activities of farmers such as crop production and protection, animal production and management, and natural resource production and conservation. For the purpose of this study agricultural information therefore refers to agriculture related data which are transformed into meaningful and useful contexts or forms for effective decision making in agriculture or farming related activities. Sources of information are tools that can possibly meet the information needs of different categories of users. There are different sources of information.

According to (Samuel 2001), cited in (Tadesse2008:171) there are three major organizations, which generate agricultural information in Ethiopia. These are government agricultural extension systems both at federal and regional levels, Central Statistical Authority (CSA) and research institutions. The CSA is responsible mainly for macro-level data and statistics, whereas the Federal Ministry of Agriculture (MOA) and Regional Agricultural Bureaus are also mandated by law to collect process and disseminatedata with respect to the performance of agricultural projects and programs. Agricultural research centers generate and disseminate technical data on new findings and other recommendations.

(Ajuwon and Odeku 2012), cited in (Emmanuel 2016:7) information sources come in great diversity and various forms such as print and non-print forms. Print connotes books, periodicals, bibliographies, maps, indexes and abstracts, photographs, government documents, technical reports etc. It can also be in electronic form. Non-print materials include audio visual, multimedia, microfilms, electronic books, journals, images, texts/records from the internet, web documents etc. These information sources can be found in human archives, libraries and the internet.

### **2.1.5 Factors Affecting Dissemination of Agricultural Information**

Information and communication are essential ingredients needed for effective transfer of technologies that are designed to boost agricultural production (Ariyo et.al, 2013: 19-28). There are different factors that influencing dissemination of agricultural information. (Ifukor 2013:306-312), barriers to effective of communication are factors that interfere with or affect the intended message and or prevent it from either being received or from being correctly interpreted by users.

Another obstacle in disseminating information to farmers is attitude of the information agent. This means lack of understanding between the principals. Farmers have limited knowledge and their speech patterns and thinking tend to be different. This tends to restrict their imagination and make their understanding of scientific terms, difficult, particularly abstract concepts. Education is presumed to enhance farmers' ability to receive, decode and understand information in which the role extension agent is high.

According to (Belay, 2003:79) extension programs and policies have been formulated without due consideration to the farmers' opinions and their traditional knowledge system. These farmers are not often informed about the availability of technologies and they stick to their age-old practices. (Feder et al.1985:255-298) viewed that the factors related to the characteristics of producers include: education level, experience in the activity, age, gender, level of wealth, farm size, labor availability and risk aversion.

(Ochiengo,2014:23) In many countries, socio-cultural factors are leading constraints to the effectiveness of extension. Language differences and illiteracy can impede the communication of improved technology unless they are taken into account. (FAO and gtz, 2006:3) the role of research and advisory services is to give highly accurate, specific and unbiased technical and management information and advice in direct response to the needs of their clients. Due to poor linkages between research and advisory services, the adoption of new agricultural technologies by farmers is often very slow and research is not focusing on the actual needs of farmers. In many countries low agricultural production has been attributed, among other factors, to poor linkages between Research-Advisory Service-Farmers and to ineffective

technology delivery systems, including poor information packaging, inadequate communication systems and poor methodologies.

(Kassa and Alemu, 2016: 55-76) stated that Research-Extension Linkages range of collaborations and exchange of useful information among all actors of the technology generation, dissemination and utilization system. The research-extension-farmer relationship should be viewed as an interdependent and inter-related continuum. (Ayelet et al. 2002). Cited in (Tadesse 2008:13) Add One of the serious challenges of extension organizations developing countries is the absence of clearly defined systems of compensation and fine. (Mzuhleli, 2015:15). conclude this the efficiency of agricultural extension work extremely depends on the disposal of extension professionals who are skilled, inspired, dedicated and quick to respond to the ever changing social, economic and political environment.

#### **2.1.6 Top-down, communication approaches**

Generally, top down approaches are research-led and start with the exploration of possible sustainable futures (Hadorn et al. 2008:978). The nature of such explorations varies widely and could be based on extrapolation of trends, scenarios, dynamic modeling elaborating visions and actions of co-design or adhoc methods to define requirements for a future system without the problems of the existing one. Future explorations serve functions like giving directions to short term actions, a certain loosening up from today's preoccupations and achieving opening up and congruency among stakeholders about a future orientation.

In traditional research and extension linkage system agricultural technology development and transfer have tended to be largely based on a 'top-down' one-way communication model with information flowing from researchers to end users. In this respect (Kassa, & Alemu, 2016: 55-76) notes that the earlier approaches of technology transfer, including those modeled after the land grant university system, followed a 'top-down' model of research and demonstration where farmers are considered as passive recipients of research results based on perceived needs identified by scientists.

### **2.1.7 Participatory communication approaches**

Participatory communication approach has emerged from the criticism of the role play communication in the modernization and dependency paradigm. Nowadays, this approach is considered as new paradigm on communication for development. This approach points out of the participation from local community for self-development by communication from ‘bottom up’ perspective. In brief, participatory emphasizes more understanding of multiplicity opinions to overcome stereotyped thinking by give many respects for the counterpart’s attitude to accommodate self-determination and self-reliance (Servaes, 1996:NP). In spite the promises of participatory communication, opponent of this perspective argue that participatory has obstacles in its implementation. Moreover, how the theory and practice of participatory communication has become the dominant paradigm will be examined in this essay by presenting its superiorities and limitations in term of communication for development.

### **2.1.8 Group communication methods**

This kind of communication is an extension of interpersonal communication where more than two individuals are involved in exchange of ideas, skills and interests. According to (Matebu, 2006:28). These methods are also appropriate for farmer-to-farmer dialogue and interaction. Thus, they may facilitate adoption by stimulating a sense of competition among farmers.

## **2.2. Over view of Agriculture in Ethiopian**

### **2.2.1 Agriculture in the Imperial Periods (1945-1974) Land reform policies**

Until the 1974 revolution, Ethiopia had a complex land tenure system. The tenure system can be understood in the context of the basic distinction between landownership patterns in the north and those in the south (Rashid et al,2007:145).

Historically, Ethiopia was divided into the northern highlands and the southern highlands. This northsouth distinction was reflected in land tenure differences. In the northern parts of the country the major form of ownership was a type of communal system known as rist. According to this system, all descendants (both male and female) of an individual founder were entitled to a share, and individuals had the right to a usufruct right of a plot of family land. Rist was hereditary, inalienable, and inviolable. No user of any piece of land could sell his or her share outside the family or mortgage or bequeath his or her share as a gift, as the land belonged not to the individual but to the descent group.

The other major form of tenure was gult, an ownership right acquired from the monarch or from provincial rulers who were empowered to make land grants. Gult owners collected tribute from the peasantry, exacted labor service as payment in kind from the peasants. Until the government instituted salaries in the twentieth century, gult rights were the typical form of compensation for an official.

Other forms of tenure included samon, mengist, and maderia land. Samon was land the government had granted to the Ethiopian Orthodox Church in perpetuity. Traditionally, the church had claimed about one-third of Ethiopia's land; however, actual ownership probably never reached this figure. Estimates of church holdings range from 10 to 20 percent of the country's cultivated land. Peasants who worked on church land paid tribute to the church rather than to the emperor. Mengist was land registered as government property, and maderia was land granted mainly to government officials, war veterans, and other patriots in lieu of a pension or salary. Although it granted maderia land for life, the state possessed a reversionary right over all land grants. Government land comprised about 12 percent of the country's agricultural land (Garje, 2000:39).

In general, absentee landlordism in the north and landless tenants prevailed in the southern provinces; however, few farmers owned the land on which they worked. Southern landownership patterns developed as a result of land measurement and land grants following the Ethiopian conquest of the region in the late nineteenth and early twentieth century's. After conquest, officials divided southern land equally among the state, the church, and the indigenous population. Warlords who administered the occupied regions received the state's share. They, in turn, redistributed part of their share to their officers and soldiers. The government distributed the church's share among the church hierarchy in the same manner.

Officials divided the rest between the traditional leaders and the indigenous people. Thus, the loss of two-thirds of the land to the new landlords and the church made many local people tenants. As a result, in the northern and southern parts of Ethiopia, peasant farmers lacked the means to improve production because of the fragmentation of holdings, a lack of credit, and the absence of modern facilities. Particularly in the south, the insecurity of tenure and high rents killed the peasants' incentive to improve production (ibid).

### **2.2.2 Agricultural Policies and Strategies**

Under the imperial regime, economic progress was sluggish and similarly the country's agricultural performance was poor. In its first Five Year Plan (1957-1961) the imperial regime adopted an export promotion strategy with an elaborate incentive package to attract foreign direct investment and later followed import substitution in the 1960s, Shahidur et al, (2007:34).

The Second Five Year Plan (1962-1966), relatively gave better emphasis to the agricultural sector. The main objective was commercialization of the sector by encouraging large private farms than smallholders. Unlike in the past, the Third Five-Year Plan (1967-1971) gave more consideration to smallholder farmers without ignoring the large scale commercial farms.

The objective of the Plan was to increase the productivity of small farmers through the package program in selected areas. At the time, both the Comprehensive Package Project (CPP) and the Minimum Package Project (MPP) were launched, but the result obtained was not satisfactory because of lack of finance and the low level of participation of farmers resulting from the existing land tenure system (Assefa, 1987; Garje, 2000:22).

### **2.2.3 Agriculture in the Socialist Periods (1975-1991)**

Land reform in Ethiopia during the Dergue: Government Rural Programs

During this regime, in 1984 the founding congress of the Workers' Party of Ethiopia emphasized the need for a coordinated strategy based on socialist principles to accelerate agricultural development. To implement this strategy, the government relied on peasant associations and rural development, cooperatives and state farms, resettlement and villagization, increased food production, and a new marketing policy (Retrieved from Wikipedia, April 9, 2019).

### **2.2.4 Peasant Associations and Rural Development**

Articles 8 and 10 of the 1975 Land Reform Proclamation of the regime required that peasants be organized into a hierarchy of associations that would facilitate the implementation of rural development programs and policies. Accordingly, after the land reform announcement, the government mobilized more than 60,000 students to organize peasants into associations. By the end of 1987, there were 20,367 peasant associations with a membership of 5.7 million farmers. Each association covered an area of 800 hectares, and members included tenants, landless laborers, and landowners holding fewer than ten hectares.

Former landowners who had held more than ten hectares of land could join an association only after the completion of land redistribution. An umbrella organization known as the All-Ethiopia Peasants' Association represented local associations. Peasant associations assumed a wide range of responsibilities, including implementation of government land use directives; adjudication of land disputes; encouragement of development programs, such as water and land conservation; construction of schools, clinics, and cooperatives; organization of defense squads; and tax collection. Peasant associations also became involved in organizing forestry programs, local service and production cooperatives, road construction, and data collection projects, such as the 1984 census.

### **2.2.5 Cooperatives and State Farms**

Starting in 1976, the government encouraged farmers to form cooperatives. Between 1978 and 1981, the Derg issued a series of proclamations and directives outlining procedures for the formation of service cooperatives and producers' cooperatives. Service cooperatives provided basic services, such as the sale of farm inputs and consumer items that were often rationed the provision of loans, the education of peasant association members in socialist philosophy, and the promotion of cottage industries and small enterprises.

The producers' cooperatives alleviated shortages of inputs (because farmers could pool resources) and problems associated with the fragmentation of landholdings. The producers' cooperatives developed in three stages. The first stage was the melba, an elementary type of cooperative that required members to pool land (with the exception of plots of up to 2,000 square meters, which could be set aside for private use) and to share oxen and farm implements. The second stage, welba, required members to transfer their resources to the cooperative and reduce private plots to 1,000 square meters. The third stage, the weland, abolished private land use and established advanced forms of cooperatives, whose goal was to use mechanized farming with members organized into production brigades. Under this system, income would be distributed based on labor contributions.

The government provided a number of inducements to producers' cooperatives, including priority for credits, fertilizers, improved seed, and access to consumer items and building materials (Retrieved from Wikipedia, in April 9, 2019).

A major component of the Derg's agricultural policy was the development of large-scale state farms. Following the 1975 land reform, the Derg converted a majority of the estimated 75,000 hectares of large, commercial farms owned by individuals and cooperatives into state farms; not long afterwards, the government expanded their size. The primary motive for the expansion of state farms was the desire to reverse the drop in food production that has continued since the revolution. After the 1975 land reform, peasants began withholding grain from the market to drive up prices because government price-control measures had created shortages of consumer items such as coffee, cooking oil, salt, and sugar.

As a consequence the Derg regime collapsed in 1991, the Ethiopian People's Revolutionary Democratic Front (EPRDF) assumed power. The years that followed witnessed a radical shift in overall government policy. Both the Transitional government (1991-94) and the EPRDF government that followed initiated extensive economic reforms including significant market liberalization and a structural adjustment program. Tariffs have been cut, quota constraints relaxed, licensing procedures simplified, foreign exchange controls eased, compulsory cooperative membership and grain delivery discontinued, subsidized rationing of manufactured consumer goods and fertilizers have been discontinued, privatization of state-owned enterprises begun, private banks authorized, and interest rates decontrolled. Consequently, the direct role of the state in economic activity has declined.

### **2.3 Agriculture Development Led Industrialization (ADLI)**

The most important development strategy under the transitional government is the adoption of Agriculture Development Led Industrialization (ADLI), which has been a central plank of the EPRDF government's development program until recent years. The ADLI focuses on productivity growth on small farms as well as labour-intensive industrialization. This strategy has been justified because agriculture is the largest sector in terms of output and, particularly, employment and exports; the bulk of the poor live in the agriculture-centered rural areas; considerable gaps exist between rural and urban across key dimensions of human well-being including health, education and income; and there exists substantial potential to raise agricultural productivity.

### Participatory Demonstration and Training Extension System (PADETES)

Consistent with the ADLI, in the mid-1990s, the government focus shifted from policy reforms designed to "get the prices right" to public investment in agricultural extension aimed at boosting productivity through the widespread introduction of modern technology (MoFED, 2002: NP). An extensive extension program called the Participatory Demonstration and Training Extension System (PADETES) had been implemented, and through this system, the government delivered off-the-shelf packages of fertilizer, improved seed and credit, as well as information on input use and better agricultural practices to vast majority of smallholders in the rural areas. Despite, the Ethiopian agricultural rigidity is not allowed since land is limited in the hands of peasants.

### Sustainable Development and Poverty Reduction Program (SDPRP)

Acknowledging the limited success of PADETES, the government revisited the program and formulated an integrated rural and agriculture development strategy that was launched in 2002. This new development strategy which is officially known as Sustainable Development and Poverty Reduction Program (SDPRP), (MoFED, 2002: NP), has centered on the principal goal of poverty reduction.

The SDPRP, which covered the three years 2002-2005, was the first full Poverty Reduction Strategy Paper (PRSP) developed and implemented by the Ethiopian government. It was followed by the second PRSP titled Plan for Accelerated and Sustained Development to End Poverty (PASDEP). The Plan formed for five-year period 2005/06-2009/10 (MoFED, 2005:NP). The agricultural growth agenda set by PASDEP consisted of the following elements: Shift to higher-valued crops, Promote niche high-value export crops; a focus on selected high-potential areas; Facilitate the commercialization of agriculture; Support the development of large-scale commercial agriculture where it is feasible; and Better integrating farmers with markets -both locally and globally.

The instruments to achieve these in the context of PASDEP include: (i) constructing farm-to-market roads; (ii) development of agricultural credit markets; (iii) specialized extension services for differentiated agricultural zones and types of commercial agriculture; (iv) the development of national business plans and tailored packages for specialized export crops (such as spices, cut flowers, fruits and vegetables); (v) area irrigation through multi-purpose dams; (vi) measures to improve land tenure security, and to make land available where feasible for large scale

commercial farming; and (vii) reforms to improve the availability of fertilizer and seeds (MoFED, 2005:NP).

In general Ethiopian agriculture within the above three governmental periods articulates different policies and practiced different strategies in the country. Especially in the ADLI focuses on productivity growth on small farms as well as labor-intensive industrialization strategy has been put a lot of hopes. But the program do not achieved the proposed goal beyond bulky project plane and propaganda. However, Most Ethiopian farmers are practicing lifelong traditional farming. And they are facing a lot of challenges; the agricultural communication has not been sufficiently addressed.

## CHAPTER THREE

### Research Methodology and Design

#### 3. Introduction

On this chapter the researcher show the research methodology under the title of the study. Assess the Communication Strategies in Agricultural Research: with Special Emphasis on DBARC Moret–Jiru Woreda. On the study area ministry of agriculture (MOA), DebreBrihan agricultural research center (DBARC) and an informal education site called “Gomata” is the center where found in Moret-Jiru woreda.

These institutions give agricultural training for rural kebeles and surrounding agriculturalists and other related agricultural branches like beef farming, dairy farming, irrigation, fertilizer, pesticide utilization, adoptions and implementations walkway. Agricultural communication is a key to address this task for the target population. So this study will assess this agricultural communication strategy through the following methods.

#### 3.1. The study Area

Moret-Jiru woreda is one of the Amhara regions. It's located in the North Shewa Administrative Zone about 200 km north-west of Addis Ababa. The woreda has two distinct agro-ecological conditions: (i) a highland plateau with annual average rainfall of about 900 mm and soil dominated by the vertisil type; and (ii) gorge areas with rugged topography, non-vertisil soil, a less reliable rainfall pattern and higher Temperatures. (Negatuand Parikh 1998:207). On the study area ministry of agriculture (MOA), DebreBrihan agricultural research center (DBARC), and an informal education site called “Gomata” is the center where found in Moret-Jiru woreda.

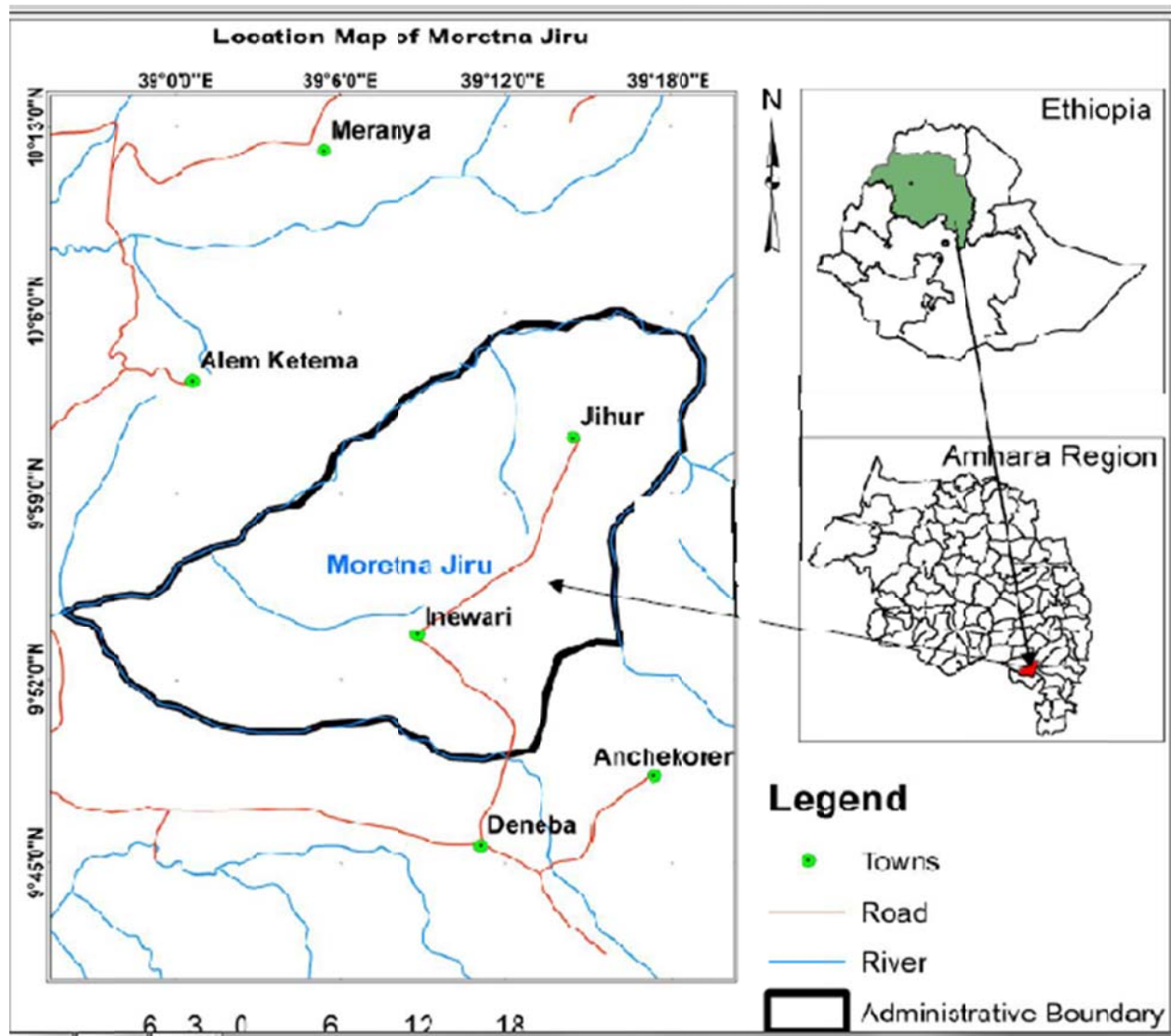
These organization give agricultural training for rural kebeles and surrounding agriculturalists and other related agricultural branches like beef farming, dairy farming, irrigation, fertilizer, pesticide utilization, adoptions and implementations walkway.

Moret- Jiru woreda has 18 kebeles with 92,937 of population size of whom 47, 611 Male 45, and 326 female live with an area of 661.16 square kilometers a population density of 140.57 which is

greater than the zone average of 115.3 persons per square kilometer. Amharic was spoken as a first language by 99.69%. The majority of the inhabitants 99.43% of the people practiced Ethiopian Orthodox Christianity per the 2007 national census conducted by the central statistical agency of Ethiopia (CSA).

Enewary is the capital/administrative of the woreda. The community of Enewary is engaged in the agricultural and other services including governmental and non-governmental institutions considered as Agrarian they call it “Regas” and “Craft” workers. The district has both “Kola” and “Dega” areas. The kola settlers are skilled in crafts and landless. They lead their life via different craft works like pottery, iron working, weaving and traditional skin processing and hide products which are used for “Kurbet” as a mat on a bed or floor. (Assefa 2015:43).

Moret-Jiruworeda was chosen for the study because the researcher knows the woreda and is easily accessible for data collection within the short time available. On the other hand one of the active and premier agricultural centers, i.e. DebreBirhan Agricultural Research Center (DBARC) is found in the woreda in DebreBirhan town near to the study area Moret-Jiruworeda. The Research Center (DBARC) was formerly established in 1978 E.C in Sheno named as Sheno Agricultural Research Center (SARC). Through time the research center moved from Sheno to DebreBirhan in 1997 E.C and changed the name to DBARC.



**Figuer.1** Location Map of Moret-JiruWoreda

Source: Central Statistical Agency of Ethiopia (CSA)

### **3.2 Research Design**

This study used qualitative research method. The researcher collects the data qualitatively and presents in qualitatively On the Research Methodology and Design. Qualitative research deals in more abstract descriptions while quantitative research to effectively address the research problem; it constitutes the collection, measurement, and analysis of overall data.

The advantage of this qualitative research method allows a researcher to view behavior in a natural setting without the artificiality that sometimes surrounds experimental or survey research. It is flexible and can allow the researcher to peruse new areas of interest.

However, Qualitative approaches are important and solve many types of problems. (Denzin, 1989), Cited in (Shidur, 2017:102-112). Qualitative research approach produces the thick (detailed) description of participants' feelings, opinions and experiences and interprets the meanings of their actions. The researcher strongly encouraged that respondents cannot be forced for responding to a questionnaire, involving in focus group discussion and participating in an interview. According to, (Cohen et al. 2008). Cited in (Sashi, 2013:50-57), interviews provide an opportunity for the researcher to investigate ideas and beliefs of participants further and to gather data which may not have been obtained by other methods such as observation or survey.

### **3.3. Sources of data and data collection tools**

The researcher uses both primary and secondary data sources. To get the necessary and sufficient data, from the primary data collected using interview, focus group discussion and observation. The primary data were collected from three groups of respondents, namely, development agents, farmers, Researchers and journalists.

### **3.4. Secondary source of data**

The secondary sources of data collect from published materials of the research institutes, Ministry of Agriculture annual reports and brochures, website of the agricultural sectors, Universities and internet.

### **3.5. Primary source of data**

The primary data collected using three interviews, three focus group discussions and non-participant observation. Thus: -Farmers from three Kebeles; select 6 farmers from each kebeles. (Mangudo, Woyramba and Gerba), researchers from Ministry of Agriculture (MOA), DebreBrihan agricultural research center (DBARC), Development Agents from 3 kebeles, Public relation Experts (PR) from MOA and (DBARC) and we got from Mass media:- Print Addis zemen newspaper, radio Fana FM and from Ethiopia radio journalists.

#### **3.5.1. Primary field data gathering in Moret-Jiru district**

The data also collected through three focus group discussions within development agents and farmers of Mangudo, woyramba and Gerba kebeles in Moret-Jiru district, and as well as three in-depth interviews within the Researchers and PR officers of DBARC on the district.

#### **3.5.2. Focus group discussions**

FGD provides the opportunity for group interaction, which generally stimulates richer responses and allows new and valuable thoughts to emerge. The researcher has used four FGD with Farmers and Development agents (DA) on the district. The discussion holds on Amharic language but then translate to English for the analysis.

#### **3.5.3. Interviews**

The other instruments developed and use interviews with two public relation experts, and four researchers, of DebreBrihan agricultural research center (DBARC) and Ministry of Agriculture (MOA) and with three journalists from EBC, Fana FM and EPA. Interviews are useful to obtain detailed information about personal feelings, perceptions and opinions. They allow more detailed questions to be asked. They usually achieve a high response rate.

According to, Cohen et al. (2008), cited in Sashi (2013:50-57), Interviews provide an opportunity for the researcher to investigate ideas and beliefs of participants further and to gather data which may not have been obtained by other methods such as observation or survey. The researcher uses this method because of to get more specific and detail information on communication strategies applicability and the factors that affect agricultural communication on the study area.

### **3.6. Data sampling and sampling method**

The research project used purposive sampling method. The researcher selects farmers and development agents purposely selected by the groups' relevance to the research topic. The researcher uses purposive sampling method from farmers who live in 18 kebeles (districts) in the woreda. For this research 18 farmers from 3 Kebeles: - they called Mangudo, Woyramba and Gerba. On these three kebeles of the woreda chosen for (FGD) because of the kebeles found near to each other this is to be good for time. On the other hand those farmers on the kebele who are identified in cluster/group. This provides that the researcher got opportunity for observe farmers group interaction on the ground. And the ministry of agriculture (MOA) and DebreBrihan agricultural research center (DBARC) has collaboration and work with these kebeles.

The researcher purposely selected the target principals based on their involvement in agricultural communication. Select two expert each organization: From Ministry of Agriculture and DebreBrihan agricultural research center (DBARC), 3 development agents and two public relation experts (PR) also included in the research.

The researcher also select the media purposely the media that works agricultural program on their organization. Such as Fana FM "Gebrina", Addis Zemen Newspaper "Economy Amid" and Ethiopia radio "Gebernachn" program. 1 journalist from Ethiopia radio, 1 from Fana FM and 1 from Ethiopian Press Agency who produce agricultural programs will be selected. Purposive sampling is preferable to extract vital information from concerned body employed systematically for the achievement of the researches goal. That is way the researcher chooses these method of data. See the following Table.

No	Target principals	Sample size
1	Farmers from 3 Kebeles; select 6 farmers from each kebeles. Mangudo, Woyramba and Gerba	18 farmers
2	Extension communication Experts from Ministry of Agriculture (MOA)	2 Researchers
3	Debrebrihan agricultural research center (DBARC)	2 Researchers
4	Development Agents from 3 kebeles, Mangudo, Woyramba and Gerba	3 Development Agents (DA)
5	Public relation Experts (PR) from Ministry of Agriculture (MOA) and DebreBrihan agricultural research center (DBARC)	Select one (PR) director from each organization.
6	Mass media: - Print Addis zemen newspaper, radio Fana FM and from Ethiopia Radio 3 Journalists.	Select one journalist/head of the program from each media house.

### 3.7 Data analysis

Qualitative data analysis is where the data collected and analyzed through coding, reading of explanations, understanding or interpreting of the people and situations being investigated. It is based on interpretative philosophy (Nigatu, 2012:1-64). The data analysis was done qualitatively through narrative analysis.

According to (Nigatu 2012:1-64) 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”

The data categorized in three levels by focus group dissection, in-depth interview and observation. The categorized data item put for according to access and use of media, proper language use, source of information, interaction or linkage of principals and what factors affecting agricultural communication dissemination for farmers. After all the necessary data process, rearrange and summarize through descriptive discussion. The data also support with as the research technique guides.

## **CHAPTER FOUR**

### **Data Presentation, Analysis and Findings**

Raw data were gathered through in-depth interview with purposively selected farmers and extension workers from three kebeles in Moret-Jiru Woreda, senior researchers from MoA, DBARC, and public relation experts from MoA, Journalists from EBC, FANA and EPA/See Annex table 1 for the detail).

Further, focus group discussions were undertaken in three kebeles in Moret-Jiru Woreda with farmers and extension workers purposively selected from the above mentioned woreda. The three kebeles selected as research samples were as phoned Mangudo, Gerba, and Woyramba. All discussions were taken under in the respective woreda (See Annex table 2 for the detail). Besides field notes and personal observations were taken too corroborated with the above methods.

Hence, this chapter presents and analysis the raw data obtained from field work through in-depth, interview & focus group discussions. Then, the final works of analysis were undertaken by jointly using descriptive and exploratory method of analysis qualitatively.

#### **4.1 Designing Communication Strategies, Implementation and Principals Linkage**

My face -to -face interview with senior extension research director on, (April 12-2019) said that, At country level, the MOA is exerting efforts to transform agricultural development through disseminating of modern research findings of new technologies, knowledge and skill through top-down communication system to the farming community.

The Ministry also is working to enhance agricultural knowledge and information services by properly documenting and managing knowledge and renew information so as to reach smallholder farmers, other stakeholder to increase agricultural production, and productivity to address food insecurity. Successful agricultural knowledge and information management require strong institutions, infrastructure, facilities, and skilled human resources to generate, capture, store, disseminate and modify services to all farming communities. These approaches applied through top- down communication system.

In order to distribute necessary information to farmers at kebele level, the Ministry of Agriculture uses different communication techniques. The first step is information follow from the Ministry to Regional Agricultural Bureaus to Zonal level and this chain continues up to Woreda. But, this linkage is not yet practically implemented in the case of the study area.

The MOA had no a published communication strategy well documented and defined communication strategy in 2018/19, to bring changes in increment of agricultural productivity to achieve food security and improve the livelihood of farmers. Furthermore, there is lack of coherent communication linkage between researchers and the disseminators of the newly found technologies to the end users.

Similar the Ministry of agriculture, DBARC had no agricultural research communication strategy. For this reason, without planned communication strategy, it would impossible to bring improved agricultural production and productivity in the country.

As my face –to- face interview with senior Agronomist on (March, 19, 2019) in his office,the respondent explained to me that the research center (DBARC)is responsible to provide technical assistance to the farmers but they are not responsible for the vision of communication messages to the farmers. Dissemination of messages is done in cooperation with the Agriculture Extension Communications Branch because the role and responsibility of a researcher is majorly to provide the technical messages which that of the stakeholderis to task the technology to the farmers.

As to my second face- to- face interview with senior crop research coordinator on (March, 19, 2019) in his office,the interviewee answered my research question satisfying that Researchers working in this organization believe that

Disseminating agricultural information is not their mandate. He added thatthe role of the research institution is technological innovation, scale-up and demonstration; the distribution engagements are done by other stakeholders.”

The Agricultural researchers blame shifting others by putting aside their responsibility of serving users. As a result, varieties of innovated technologies and useful information are kept in shelf because of lack of communication linkage among themselves.

Research centers mainly focus on technology innovation, adoption and small scale farming. Thus, the distribution of final out put may reach the end users by stakeholders. According to the researchers view Ethiopian agricultural transformation was weak because of lack of proper linkage of communication between research and the extension workers and the farmers as the end beneficiaries.

Similar to ministry of Agriculture, DBARC had no agricultural research communication strategy. Without planned communication strategy, it would impossible to bring improved agricultural production and productivity in the country.

There is no clear line of established relationships with defined guideline and work responsibility for smooth dissemination of agricultural information. In this connection my respondent said that existing relations are “principle less relations”.

In the face –to- face interview with extension communication coordinator on (April, 12, 2019) in her office, the respondent said that agricultural communication and its application strategy is imperative for increasing awareness about new technologies, popularizing technologies, stimulating adoption of technologies by farmers.

But this kind of communication strategy not applied at the woreda level. There is also no communication strategy for the grass roots level she explains. Even though, a new technology is released by researchers, DA’s do not properly communicate to farmers. Most of the time DA’s are promoting themselves as if they did better job.

The above interviewee further states that 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.

The last two decades, the Government of Ethiopia (GoE) followed the pro-smallholder policy framework known as Agricultural Development Led Industrialization (ADLI). The policy is aimed at increasing the production and productivity of smallholder agriculture to insure household level food security and generating capital from export earnings of agricultural products. But the proposed goal is not attained and Ethiopian agriculture has not developed because of lack of efficient mechanism for coordination and linkage among researchers, DAs and farmers sluggish technological change in all the way.

The government of Ethiopia has to work seriously and upgrade extension workers' knowledge and solve their skill gaps. The World Bank (1985:3-100) pointed out that bridging the gap between research and extension strengthening their linkages is the most serious institutional problem in developing research and extension programmer. Mzuhleli M., (2015:15) conclude this as the efficiency of agricultural extension work extremely depends on the disposal of extension professionals who are skilled, inspired, dedicated and quick respond to the ever changing social, economic and political environment.

In the focus group discussion with the DA's at Gerba on March, 20, 2019, one respondent says:

We spend our time to figure out their key messages, it would be best to develop a strong communication strategy. However, communication interaction with the farmers is not research based in a way that reaches the farmer the easiest possible. DA's in all the woreda and kebele level could not get chance of directly participated in regular training with experienced researchers. The message of training delivered to DAs was received through 2<sup>nd</sup> person. With this respect, most of the time we have gap of knowledge and misleading information follow from the principals.

(Negatu,1999:205). Said this is caused by the lack of proper knowledge about the principles of group formation and participatory extension among extension agents, which is the result of a low investment level in agricultural extension services in most developing countries.

Development packages are sent from the Zonal Agriculture and Rural Development Bureau, so that the plan and execute as per the guideline directed by the Bureau. As are suit, the then DAs need to be disseminate all application to farmers without adequate training and all farmers were requested to reflect on their participation in discussing and setting agendas for improving their productivity and production within a day. For that matter, the Farmers need and the Das application on their hand is quietly different.

According to the researchers and extension workers, they hold regular planning and review meetings with farmers where farmers decide on the type of experiment that they would like to undertake. Treatments in experiments are also selected together with farmers and the role of researchers and extension workers is more of a facilitator.

DA's raised another issue that's the relationship between researchers and DAs.

There is no clear integration and linkage between the principals and not clear working mandate with us. they said

For example, for similar soil type, the farmers use different types of fertilizer that bought in different price in the study area. Because of this, DAs have not enough knowledge and unable to answer why the farmers utilize different inputs.

In this regard lack of clarity on the roles and responsibilities among participant and stakeholders. Their linkage is broken and they didn't exploit the required profession, knowledge and skills.

The result of all DA's in three kebeles they spent a lot of time in training farmers through FTC and formulating platform on how to train them. But there are a lot of obstacles to apply all the application to farmers.

Improvement of agricultural production depends on farmers' access and willingness to use new technologies through extension services. Also, extension programs should aim to empower

farmers and enable them to identify and analyze their agricultural problems and be able to make the right decisions.

In containing the focus group discussion with farmers, who were purposively selected from the above mentioned kebeles from March, 5-12, 2019, more information was gathered that more strengthened the above information. The respondents expounded that correct communication strategy plays key role in increasing awareness about new technologies, popularizing technologies, stimulating adoption of technologies among farmers. Previously, most farmers have several problems to adopt new technologies and access to high yielding varieties of crops. Because of lack of understanding toward this technology, farmers use their indigenous knowledge to plant seeds. They have feared of adopting variety of technologies and they had questioned whether the crop was used even for food consumption.

The Gerba and Woyramba respondents said our communication between DAs and researchers has been improving steadily and we brought some behavioral change in adopting new technologies and innovations. But, this is said to be not that much enough to solve our problems because there is no clear integration among Development Agents and Research institutes. Currently, farmers are showing interest for using new technologies but there is a shortage of varieties of crops and new released technologies are not distributed to farmers adequately on time.

Mngudo respondents said that all farmers of the kebele are not equally perceive and adopt new technologies. They have also low interest and sluggish to adopt the technologies because some farmers are ignorant. On this perspective farmers are divided into three types.

The first categories of farmers are risk takers and grasp easily. They are model farmers. The second type of farmers are having little fear and hope. And the third types of farmers are very sluggish farmers.

On this regards, Development Agents (DAs) are not providing equal treatment for farmers because of the first adopter need another new varieties and the DA's focused on those farmers. Sluggish adopter hadn't got enough knowledge and treatment from DA's. Those farmers didn't

utilize the new technologies and its application will be ended due to their negligence. As a result DAs in the study area communicate agricultural messages with farmers by working collaboratively with the farmers.

The farmers explained that the supply of agricultural technology is subsistent although they are in a high demand of mechanization technologies.

Most of the time development agent (DA) teaches line seedling and fertilizer for the farmers. But the farmers do not accept and apply the application. The type of soil of their land is vertile “Walka” soil this type of soil is very difficult to plague in line and the price of fertilizer is not affordable. Due to these reasons, the farmers have fear to apply what they hear from the DAs. New variety seeds cannot grow up without fertilizer and DAs should first solve these problems before communication disseminate the technologiesto farmers.

Currently, farmers are showing interest for using new technologies but there is a shortage of verities of crops and new released technologies are not distributed to farmers adequately on time. (Habtemariam, 1997:30) said that, research outputs do not reach farmers and remain shelved in research centers. Often, research and extension organizations compete for resources, mandates and influence rather than cooperating for a common purpose. In order to change this situation, this dominant paradigm needs to be replaced by the fact that research and extension are interlinked, overlapping and interactive processes

On April 12, 2019 I led face- to- face interview with Senior PR Director in his office He strongly believes that, communication is a social function which occurs whenever persons interact with the objective to attain a change in behavior. Public relations experts are the mouthpiece of organization for all rounds. Accordingly, their application strategy play a great role for increasing awareness about new technologies, popularizing technologies, stimulating adoption of technologies to farmers. But, the expertise perceives PR as a political practitioner. Farmers also perceive extension workers as political cadre. Farmers are not interested to learn from DAs due to lack of awareness and trust. Farmers put down all agricultural activities under political propaganda of government.

The MoA have no agricultural communication /strategy until 2018/19. However, efforts are being underway to establish agricultural communication strategy. Development of agriculture is considered to be low due to lack of effective agricultural communication strategy to be formulated by MOA.

In the face-to-face interview with Senior Researcher and extension coordinator on, (April 19, 2019). He works as a PR expert; he says:

Public relations is the management function that establishes and maintains mutually beneficial relationships between an organization and the entire public, which would play a great role for the achievement or failure of communication to address agricultural research findings.

Responses obtained indicate that, communications should take place by responsible person in the right place and time to reach out the farmers. Most of the time communication undertaken by researchers who didn't know about profession of communication. This should be done by public relations experts. But DBARC have no public relation professionals at all.

The study shows that the information about various research outputs are communicated to farmers with people who have non skill of communication professionals. According to Belay (200:17) research outputs do not reach farmers and remain shelved in research centers because of lack of effective communication system.

Based on the above analysis MoA and DBARC do not have communication strategy that guides the adoption of agriculture information and innovative technologies to farmers. On the other hand there is a need for strong collaboration between the Woreda Agricultural Bureau and the Ministry of Agriculture to achieve developmental agriculture and food security. The two organizations have the same goal and the Ministry of Agriculture and the research center learn from each other.

## **4.2 Acceptable Approaches and Language Usage**

Answers by Farmers within focus group discussion the Gerba, Mngudo and Woyramba purposively selected farmers for the focus group discussion held from March, 5-12, 2019 said that there are several communication strategies and approaches applied on each kebeles for dissemination of information. These includes group method, one to five, cluster based seedling that is called “Mahiber”, field visiting on the ground, inter personal and farmers field day. Similarly, they show the result of model farmers for non-adopters using the so called “Debo” (cooperation in harvesting time). During group discussion the farmers in three kebele expressed that group communication method is better than others and gained acceptance because it gives chance for farmer learn from each other.

in my face –to- face interview with crop research coordinator on (March, 19, 2019) in his office, the respondent said that

researchers and farmers are do not communicate only by dialogue. However farmers are in groups by clustered based farming within these method we find solutions in collaboration with farmers by identifying their problems in the ground. They also test and implement the feasibility of technologies and evaluate the result together.

Respondents stated that DAs, extension workers and researchers not only share the largely theoretical information with farmers but also learn from accumulated experiences and practical knowledge from farmers. Annual field day make great opportunity for farmers, researchers, DA’s and stake holders especially for media they found all in one. 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 DAs in the study area communicate extension messages with farmers by working collaboratively with the farmers. According to the respondents, DAs and researchers work strongly to realize farmers’ ambition. In the study area, the role of the DA is higher than other researchers and stakeholders for these tasks in FTCs. According to MoA (2010:23), the Ethiopian agricultural extension system is heavily dependent on Farmer Training Centers (FTCs) and trained DAs that give extension support to farmers.

All respondents told the researcher that group and one to five methods of communication are used. However, results of Farmers, DA's and Researchers Group and one to five communication methods are most popular and use full approaches of agricultural communication disseminations on the woreda. According to (MatebuTadesse, 2006:28) group methods are appropriate for farmer-to-farmer dialogue and interaction. Thus, they may facilitate adoption by stimulating a sense of competition among farmers. Judged from these advantages, group methods may be valuable in the Ethiopian agricultural system.

In the discussion anonymous DA on March, 20, 2019 stated that,

“we strive for solving common problems together”.

DAs said that we are not late to find solution and apply another acceptable communication method to disseminate agricultural information for farmers on stated kebeles. We are using model farmers to share their best experience to their neighborhood farmers.

They also acquire agricultural information from each other. This becomes a better source of information especially since the information being disseminated comes from those who might have had experiences with the potential technologies that other farmers seek to adopt. According to Placeet al. (2005: 27) more experienced farmers become the best discussion partner's for other farmers.

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

Village meetings/ “Mahber” were also accounted 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.

During Focus group discussion answers by DA's within three kebeles, language as tool of communication play positive role in disseminating agricultural technologies to farmers. Sending message with the large age that the farmers talk and through interpretation have disseminate impacts on awareness creation on farmers acceptance and understanding of the new technologies intended to be seat to farmers. The woreda of the study area is inhabited by Amharic speaking people Amharic is "the working language of the federal government" (constitution, 1995:132) as well as the working language of the Amharic regional government. As per my discussion with the farmers and DAs through focus group discussion in three kebeles, my respondents explained to me that there is no language barrier in communicating. The DAs use two modes of communications, namely verbal and non-verbal. Among these modes of communication, it was identified that the verbal mode is the widely means through which the development agents disseminate development packages. They speak the same language communicate and have a lot more local people.

On the other hand, DAs modify difficult words to their own language in the context that familiar to farmers so as to disseminate agricultural information for all. Thus, Verbal and face to face communication are most commonly used within DAs and farmers on the woreda.

In our continued discussion amongst the participant farmers are expounded that, sometimes researchers invited farmers to attend forums or trainings arranged for them in their village or farmers' Training Center at the Woreda level without prior information of the agenda of discussion. The agenda was presented in English or full of scientific words, for that matter, the importance of involving those farmers was not clear which in turn bring language barriers.

In face –to- face interview with journalists on April 27, 2019, they criticized that the jargon language used by DAs affect output of journalist's works. In this case when journalists interviewed farmers; their response is full of unarticulated scientific words and jargons. Therefore, journalist's exerted efforts to change these words to easily communicate with farmers. Sometimes farmers used English names equal to Amharic. For instance "compost" is English but

farmers adopted this word as Amharic word and do not call as. “የተፈጥሮ ግዳቦሪያ”:: That literary means “ organic fertilizer” he said.

### **4.3 Access to and Use of Media**

Ethiopia has a lot of media channels which disseminate various information through different medium of language. Ethiopia radio is one of the oldest and most popular radio stations of the country. “*Gebrenachin*” is one of the programs that deal with providing agricultural information to farmers by using “Green voice”. Previously, this program raised on Monday morning called “*Awude Geter*”. The program has aired for 20’ minute starting from 1:10-1:30. After then, the program changed to “*Gebrenachn*” and adds length of time 20’-50’ and the program raised on Wednesday evening and again Saturday morning on air for 50’ minute.

In interview with senior editor on April, 27, 2019 he explained that media works is two ways of activities. The first is information provider and the second is information disseminator by using different media outlet to reach to the target audience. On this case, the journalists use sources of their news from farmers, DAS, research institutions and agricultural organization.

As to my second face –to- face interview with senior Reporter on April, 23, 2019, he said that FanaFM is one of the first FM radio station next to Ethiopia radio. “*Gebrena*” is one of the programs to disseminate agricultural information to the audience.

This is a weekly program that has 30’ minutes length on air. The roles of media are to articulate message and disseminate that information by Journalists through media. Journalists did not be concerned about audience attend the program or not. So that journalists display the program on air without evaluating the significance of the program.

As to my third face –to- face interview with senior Journalist on May, 12, 2019, in his office, He answered that, Addis Zemen Newspaper is one of the oldest print media in Ethiopia. This newspaper has agricultural news under business and economy head.

The journalists responded that the information covered by newspaper is almost limited to half page. It is printed out on middle section of newspapers.

Based on the country's policy toward the framework known as Agricultural Development Led Industrialization (ADLI), this not sufficient. According to print media Addis Zemen Newspaper raised some agricultural news weekly on their page. But not reached well on the study area and the farmers had no knowledge and experience to buy newspaper for reading.

Answers by DA within focus group discussion, on March, 20, 2019 at Gerba, the study area Moret-Jiruworeda has two districts; they called "kola" and "Dega". The farmers found in kola district have not radio set and access and use of media. Because of knowledge, electricity and economy is the major reason for not using such device. On the other hand the farmers live in "Dega" district have radio set and attend news and different radio programs. DA's said that

the annual farmers field day held on the woreda annually. On this day, woreda agricultural bureau organized the program to discuss with farmers in various range of issues and invite different media organizations to cover the event.

Farmers attend this news only and they didn't attend regular programs.

Because of the above obstacle they find another solution to find agricultural information which called 8026 mobile phone communication method. Mobile phones have greatly reduced communication costs, thereby allowing individuals and firms to send and to obtain information quickly and cheaply on a variety of economic, social and political topics Aker (2010:19).

The researchers' response those farmers have gap of knowledge for the program, accessing to find the station and lack of time is big obstacle to them. On this regards they haven't interest in the program. On the other hand, time of the program was not appropriate for them as the program runs while they are involved in field work.

The major agricultural information source of Moret- Jiruworeda farmer are DA. The other alternative information source is mobile phone. Farmers using this mobile phone to get relevant and accurate agricultural information on time within neighbor farmers, rather than face-to-face contact of them. Deribe (2016: 1-24) These are also important for mobile phones and other ICTs to be used efficiently to facilitate agricultural extension services

During Focus group discussion farmer's response that, it is believed that television, radio and newspapers are not good for them channels among accessible to farmers about agricultural information.

“One respondent answers me most of the time agricultural news upturned for propagandas purpose not educational way to farmers.so that I haven't interest to attend agricultural news at all”.

In the study area, channels mostly used to disseminate agricultural information to farmers are 8026 telephone call methods rather than the other methods. A telephone call makes communication simple to reach and share information farm related issues with other farmers who are in the remote area. Newspaper, Radio and Television are least used channels to get agricultural information in the study area.

Access and use of media, results of Farmers revealed that most of the farmers in the study areas have radio sets but not attend any agricultural programs. They attend other different programs. Most of the time they like to listen music and political news. They said that farmers in the study areas did not know even the program are on air. This result shows that Agricultural informationcommunicationthrough electronic mediahas not beengiven proper attention and been aware peoples adequately.

Farmers and development agentsalso revealed that access to printed agricultural communication materials is almost zero.

Journalists confirmed this any printed articles not distributed far from zonal urban settlement. In my interview onMay, 12, 2019,.

Whereas, the result of Researchers indicated that DBARC researcher distributes some flyers and production guides to a few farmers such as members of farmer research groups, owners of demonstration plots, model farmers and DAs. This result suggests that agricultural informationcommunicationthrough printed materials has not been given proper attention.

#### **4.4 Factors affecting agricultural information dissemination**

As to my face- to- face interview with seiner crop research coordinator on March, 19, 2019 the respondent said that

The word “Gebere” literally to mean a “peasant” though I tried to rely you, feel language is major constraint is an insult in our community. In Ethiopia many people are not modern due to their life style. Gebere has bad connotation to mean uncivilized, villager, backward etc. So, communications solve this kind of things and change our peoples mind setup. Students who are enrolled in different schools didn’t have interest to join university for attending Agricultural related department.

However, the negative attitude toward Ethiopian agricultural communication comes from school at childhood level to university level. According to this students learning agriculture without their interest

“especially students those origin is from urban areas who have no agricultural background are not happy with their profession. On this case the researchers add that it is difficult to work as DA due to lack of confidence, interest and practical knowledge. In addition, farmers have less interest for the interaction.”

The Farmers from Woyrambakebele in our focus group discussion conducted on March 12, 2019, when responding to my imposed question replied that there obstacle of agricultural information dissemination are they underlined on the following problems of agricultural information flow in regard to:

new released seeds did not have reached on time there is not clear integration with principals Need of farmers and the way that Dasare unraveling problems are not comparable

Farmers answer by focus group discussion in Gerba and MangudoKebeles, on March 5 and 9 there is problem when we use fertilizer and pesticide. Farmers not want to apply what they learn from DAs in utilizing fertilizer and pesticide.

-Most of the time farmers apply the way they want. E.g. pesticide applies on crops on evening or night, but farmers make this on day time morning or noon based on their own decision.

-DAs did not provide necessary equipment for farmers such as glove, trouser called 'tuta' etc... most of the time DAs teach application by theoretical without knowing on this case mutual understanding is not functional on the ground.

In our continued discussion amongst the participant are expounded that, we teach them about all agricultural applications. But the expected result is not satisfactory compared to their income. Sometimes DAs resign their job due to various reason and farmers are unable to familiar with new DAs. On the other hand different positive and negative factors have been affecting extension workers.

According to (Herzberg et al. 1959:157) negative factors such as physical working conditions, poor pay, organizational policies, inter personal relations; and positive factors such as recognition by others substantially influence workers' job satisfaction and hence affect their working time. This in turn influences their job performance and agricultural productivity.

In my face –to- face interview with Journalist from FANA, EBC and EPA said that we got information from different stakeholders, researchers, experts, DAs, and farmers.

Journalists and researchers have no strong relationship in terms of working together in disseminating agricultural information. On the other hand Compare to other program, electronic media houses give small amount of air time to agricultural related programs as well as in print media.

In my first face –to- face interview with senior Journalist on May, 12, 2019, in his office, Most agricultural institutes and stake holders prepared their media outlet by PR experts. These experts give this source of information according to political environments. Journalists has a big challenge when we find information sources from the target person/researcher through digging out to the truth.

The journalists also said that there are different factors which are affecting agricultural information disseminations. Audiences have less interest and trust on media messages due to absence of their voices in the programs and also lack of awareness. On this case most farmers perceived media messages as propaganda. On the other hand farmers of our community are dependents on DAs for extension information all the time rather than media people or journalists.

However, Agricultural information is not communicated well and media houses had not agricultural desk on their media outlet. On this cause farmers and DAs are less involved in deciding on content. Hence when few farmers have success full and the journalists show less effort to address this successful farmer stories on their program because of time budget and networking with each other.

## 4.5 Findings

This study has come out with the following findings and enumerated here in below.

1. In Ethiopia Agriculture as well as “peasant” is not gives plentiful respect in the community. This is due to the Ethiopian agricultural sight faced problems at its infant stage which is not a concern of the education process from kindergarten school to university level.
2. The study area farm lands are profitable flat surface and have moderate weather conditions that are favorable for farming. However, they are not profited from advantageous resource due to lack of adequate agricultural extension communication and mechanization all the way.
3. This finding clearly shows thatthere are big challenges and no clear integration in terms of collective responsibility in disseminating agricultural information to the principals. Their relations are not guised principles. There is no strong linkage between change agents and researchers as well as farmers. In this regard, effective communication between them is essential for increasing agricultural production through the use of improved technologies.
4. DebreBrihan agricultural research center (DBARC) has found near to the woredabut the farmers could not get adequate agricultural support from the center. The research center has tried to play its role for address new technologies and providing high yielding verities that have been accessible to farming community but not yet. However, they didn’t have agricultural communication strategy, without integration and communication strategy they would not achieve the proposed goal become successful. Poor communication linkage between different principals and lack of information flow between researchers, extension agents and farmers has been sacrificing agricultural sector in the study area.
5. The finding also indicates that MoA had no structured Agricultural communication strategy until 2018/19 which is unpublished /draft agricultural extension communication strategy. On the other hand on DBARC agricultural information communicates without public relation or professional communication experts. On this regard communication has been done by anyone

who is in the organization as an additional work. This bad habit had brought a great impact in the development of modern agriculture.

6. In the study area, group and one to five communication methods are most popular and useful approaches of agricultural communication disseminations in the woreda. Farmers meeting at the demonstration plots were also reported to be one of the most effective ways of getting information about how to effectively agricultural inputs and conserving their land. In addition, they were able to learn from one another as well as share experiences to apply best practices to their gardens.

7. The finding reveals that farmers and Journalists perceived PR experts a political cadre. They also perceived all DAs political executor. Farmers are not interested to learn from DAs due to lacks of trust in their activities. DAs work as tax collectors force the farmer to pay. On this case farmers put down all agricultural extension activities under propaganda.

8. Most Ethiopian people has agrarian. According to the number of people Agricultural information has not given enough media coverage by Radio, TV and as well as print media, as giving more air time for politics and entertainments rather than educational programs. The media themselves have not agriculture science desk. Farmers of Moret-Jiru Woreda had not knowledge about when agricultural information is disseminated through these media outlets and they have lack of trust to media. Most farmers perceived that a media message by way of propaganda.

9. Journalists got information from different sources, stake holders, researchers, experts, DAs, and farmers. However, journalists had not got appropriate information regarding agriculture related issues from responsible person. Researchers and communication expertise are not voluntary to give information based on journalists need.

10. The researcher found that most of the time, farmers in the stated woreda listening political issues and entertainments. Almost all respondents in the study area prefer to listen/ watch other an related stations. The least used channels that farmers used to get agricultural information are newspaper, radio and television. The result shows that Addis Zemengives weekly news coverage on agricultural information in the middle section of the newspaper. But, it is not accessible and

reached in the study area and the farmers had not knowledge and experience to bought newspaper for reading and got agricultural information from the newspaper.

11. Another finding reveals that farmers of the study area are dependent on DAs for any agricultural information all the time rather than using media as a source of information. Sometimes farmer's uses 8026 telephone methods rather than using communication channels like radio, TV and other print media to get agricultural information. DAs provide more relevant information to the farmers, but lack of road network and connection to electricity are impeding their activities.

## **CHAPTER FIVE**

### **Conclusion and Recommendations**

#### **5.1 Conclusion**

In conducting the investigation, the researcher reviewed relevant literature and took firm stand on the fact that development brings together groups of people who are stimulated to improve aspects of their way of living in a world that constitutes many unequally distributed power and resources and for this reason it establishes a process of bargaining and negotiation. Strategy and effective communication is an integral part of this process without which there is no development.

Effective communication between change agents and researchers is essential for increasing agricultural production through the use of improved technologies. This study concluded that Poor communication linkage between different principals and unstated information flow between researcher's extension agents and farmers in Moret-Jiruwoledapay a lot. New technologies and providing high yielding varieties they didn't have been accessed and adopted by the farming community on time. In this regard, effective communication between researchers, farmers and development agents is essential for increasing agricultural production through the use of improved technologies.

There is no strong linkage between change agents and researchers as well as farmers. In this regard, effective communication between them is essential for increasing agricultural production through the use of improved technologies. Poor communication linkage between different principals and lack of information flow between researchers, extension agents and farmers has been sacrificing agricultural sector in Moret-Jiruwoleda.

The result also agricultural communication is practicing without public relation or professional communication experts and it has been done by anyone who is in the organization as an additional work. This bad habit had brought a great impact in the growth of modern agriculture.

Furthermore there is lack of coherent communication linkage between researchers and the disseminators of the newly found technologies to the end users. For this reason, without planned communication strategy, it would be impossible to bring improved agricultural production and productivity in the country.

Generally agricultural sector to deliver efficient and sustainable agricultural service to the farmer, it is necessary to designing national communication strategy in which the importance and operation of strategic communication for agricultural development are clearly articulated in country level. As a result last but not list this study has come up with the following recommendations.

## 5.2 Recommendations

**The following recommendations were made based on the findings and the conclusions of the study:**

- 1 The result reveal that MoA and DBARC had no communication strategy. For this reason, without planned communication strategy, it would impossible to bring improved agricultural production and productivity in the country. As to this MoA and DBARC should establish agricultural communication strategy.
- 2 Poor communication linkage between different principals and lack of information flow between researchers, extension agents and farmers has been sacrificing agricultural sector in Moret-Jiruworeda. Principal let's make sure solve this big obstacle first to get the proposed goal.
- 3 Debrebrihan agricultural research center (DBARC) has found near to the woreda but the farmers could not get adequate agricultural support from the center. theworeda needs a lot effort from DBARC.
- 4 Some farmers were having radio set on the woredabut not attend agricultural programs whereas listen to other programs; like music and politics. So that DAs be aware farmers to attend the program on time. In addition to this researchers, government organization and policy makers to consider establishing a community FM Radio station in the region to promoteddissemination of information.
- 5 Farmers have no radio set and may not have TV in the Woreda and others may not read the written materials, DA's should train farmers well in FTC.
- 6 To deliver efficient and sustainable agricultural service to the farmer, it is necessary to organize farmers based on common interests into different development groups and in packages so that messages can easily be delivered. Organization and stakeholders make sure to engage this.
- 7 Extension communication is never complete without adequate and correct feedback information. So that the DA's should know what has happened after the message has reached them.
- 8 Farmers are not often informed about the availability of technologies andResearch out puts not reach on time they stick to their age-old practices.Research institutes should provide the identified and required input on time.

## REFERENCE

- AdewaleOduwole, A., & Nancy Okorie, C. (2010).Access to agricultural information and millennium development goals. *Library Hi Tech News*, 27(1), 10-12..
- African Research Review. (2016). *An International Multi-disciplinary Journal, Ethiopia*. Vol.10 (3),No.42,June,2016p.317-337Doi: <http://dx.doi.org/10.4314/afrrrev.v10i3.21>.
- Ajayi, O. J., & Gunn, E. E. (2009).The role of communication in dissemination of improved agricultural technology in Bosso local government area of Niger, Nigeria. *Journal of Agricultural Extension*, 13(1).pp.66– 72.
- Aker, J. C., &Mbiti, I. M. (2010).Mobile phones and economic development in Africa. *Journal of Economic Perspectives*, 24(3), 207-32.
- Ariyo, O. C., Ariyo, M. O., Okelola, O. E., Aasa, O. S., Awotide, O. G., Aaron, A. J., & Oni, O. B. (2013). Assessment of the role of mass media in the dissemination of agricultural technologies among farmers in Kaduna North Local Government Area of Kaduna State, Nigeria. *Journal of Biology, Agriculture and Healthcare*, 3(6), 19-28.
- Asfaw, S., Shiferaw, B., Simtowe, F., & Lipper, L. (2012). Impact of modern agricultural technologies on smallholder welfare: Evidence from Tanzania and Ethiopia. *Food policy*, 37(3), 283-295.
- Assefa A (1987). *A Study of Factors that Affect Use of Agricultural Credit among Peasant Farmers in Ethiopia: The Case of Two Districts*, School of Graduate Studies, Addis Ababa University.
- Assefa, M (2015). *An investigation of intercultural relation through adult education in the cause of Enewary and surrounding community in North shewa zone of the Amhara National Regional State*. Unpublished Thesis submitted to Addis Ababa University.
- Atsbaha G &, Tessema B (2012). A review of Ethiopian agriculture: roles, policy and small-scale farming systems. *C. Bell & J. Prammer (Researchers), C. Eder, D. Kyd-Rebenburg, & J. Prammer (Eds.), Global growing casebook: Insights into African agriculture*, 36-65.

- Belay, K. (2002). *Constraints to agricultural extension work in Ethiopia: the insiders view. 1998 inappropriate policies and wrong priorities: invisible cause for the mediocre performance of Ethiopian Agriculture*. Alemaya University, department of Agricultural Economics-tropical et subtropical, 201-210.
- Belay, K. (2003). "Agricultural extension in Ethiopia: the case of participatory demonstration and training extension system". *Journal of Social Development in Africa* Vol.18 no. 1, January 2003 p.24
- Belay, K. (2003). Agricultural extension in Ethiopia: the case of participatory demonstration and training extension system. *Journal of social development in Africa*, 18(1), 49-84.
- Benin, S. (2006). Policies and programs affecting land management practices, input use, and productivity in the highlands of Amhara Region, Ethiopia. *Strategies for sustainable land management in the East African Highlands*, 217-256.
- Boz, I. and Ozcatalbas, O. (2010). *Determining information sources used by crop producers: A case study of Gaziantep province in Turkey*. *African journal of agricultural research*, 5(10), p.980-987.
- Budak, D. B. and Yurdakul, O. (2004). *Sustainable Agricultural Development Through Extension Education*. *Asian Journal of Plant Sciences* 3 (2): 215-18.
- Burnett, C. & Tucker, M. (2001). *Writing for agriculture: A new approach using tested ideas*. Dubuque, IA: Kendall/Hunt Publishing Co. p23  
<http://www.jaeonline.org.attachments/article/353/44-01-22.pdf>
- Carter, I (1999). *Locally generated printed materials in agriculture: experience from Uganda and Ghana*. Education Research Report No. 31. London: Department for International Development. 464-469
- Clark, T. et al. (2011). *The Future of Research Communication*. Dagstuhl Reports, Vol. 1, Issue 8, pp. 29–52.

- Deribe, k (2016) *Knowledge Centers in the Pilot Learning Woradas of Improving Productivity and Market Success Project: Utilization, Relevance and Effectiveness*. IPMS-ILRI.pp 1–24.
- Emmanuel, A (2016). *Use of Agricultural Information Sources and Services by Farmers for Improve Productivity in KwaraState*.Library Philosophy and Practice (e-journal). 1456. <http://digitalcommons.unl.edu/libphilprac/1456.p7>
- FAO (2009).“2050: A third more mouths to feed”. FAO Web News, (23 September 2009). FAO, Rome. See: <http://www.fao.org/news/story/en/item/35571/icode/> (accessed 5 May 2019).
- FAO and gtz (2006) “*Fream work on effective rural communication for development*” Published by the Food and Agriculture Organization of the United Nations, Food and Agriculture organization of the united nations Rome 2006p3.
- FDRE, *Constitution of the Federal Democratic Republic of Ethiopia (FDRE)*, constitution (1995:132)
- FDRE-MoFED, (2002).*Ethiopia: Sustainable Development and Poverty Reduction Program Annual Report*. Ministry of Finance, Addis Ababa, Ethiopia.p.135.
- Feder, G., Just, R. E., &Zilberman, D. (1985). Adoption of agricultural innovations in developing countries: A survey. *Economic development and cultural change*, 33(2), 255-298.
- Flaherty, Kathleen ,NienkeBeintema, and Gert-Jan Stads (2010). *Communicating Agricultural Science and Technology Indicators: Lessons Learned*. Paper presented at the Scientific and Technical Information and Rural Development IAALD XIIIth World Congress, Montpellier, 26-29 April 2010 and published in *Agricultural Information Worldwide* 3: 2, 2010.
- Garje, G. (2000). *Determinants of Productivity of Smallholder Farmers in Ethiopia: The Case of Wheat Production in Two Districts of Sidama Zone* (Doctoral dissertation, M. Sc. Thesis, Addis Ababa University).

- Habtemariam, A. (1997). *Targeting Extension Service and the Extension Package Approach in Ethiopia*. Commercial printers, Addis Ababa, Ethiopia. p.30.
- Hadorn, G ,Biber-K, Grossenbacher-M, Joye, D &Zemp, E.. (2008). *Handbook of transdisciplinary research* (Vol. 10, pp. 978-1). Dordrecht: Springer.
- Haile, K. (2001). *Land Reform: Revisiting the Public versus Private Ownership Controversy*. Ethiopian Journal of Economics, Ethiopian Economics Association, vol. 7(2), pp.45-64. Addis Ababa University.
- Hauser, M (1997). *The design of animal communication / edited*. Based on a symposium which took place on March 22 and 23, 1997 .P 7.
- Herzberg F, Mausner B. &Snyderman B. (1959).The motivation to work. New York: Wiley, 1959. PP. 157
- IfukorOmogor, M. (2013).Channels of information acquisition and dissemination among rural dwellers. *International Journal of Library and Information Science*, 5(10), 306-312.
- Kassa, B., &Alemu, D. (2016). Agricultural research and extension linkages: Challenges and intervention options. *Ethiopian Journal of Agricultural Sciences*, 27(1), 55-76.
- Keyton, J. (2011). *Communication and organizational culture: A key to understanding work experience*. Second Edition. Thousand Oaks, CA: Sage.
- Matebu, T (2006:28). *Approaches and Acceptability of Development Communication for Agricultural Development*. (MA) thesis: a case study of Central Ethiopia: Ada'aWereda Addis Ababa University. Addis Ababa.
- Maunder, A.H (1973). “*Agricultural Extension*” A reference manual (Abridged version).Rome: Food and Agriculture Organization of the United Nations. P. 103
- Mefalopulos, P. &Kamlongera, C. (2004).*Participatory communication strategy design: A hand book*. Second edition. Rome, Food and Agriculture Organization of the United Nations P21

MoA (2010), *Draft Agricultural extension communication strategy* .un published MoA

MoA and FDRE (2010) *Various official documents and records from the Agricultural Inputs Supply and Marketing Department*. Addis Ababa: MoA.

MoFED (2005).*Ethiopia: Building on Progress: A Plan for Accelerated and Sustained Development to End Poverty (PASDEP) (2005/06-2009/10)*, Ministry of Finance and Economic Development (MoFED), Federal Democratic Republic of Ethiopia, Addis Ababa.

MoFED( 2002). *Ethiopia: Sustainable Development and Poverty Reduction Program*, Ministry of Finance and Economic Development (MOFED), Federal Democratic Republic of Ethiopia (FDRE), Addis Ababa, Ethiopia.Resettlement and villagization in Ethiopia: From Wikipedia, the free encyclopedia accessed april 5, 2019.

Mzuhleli, M (2015) *Effectiveness of agricultural extension organization in rural areas*. (MA) thesis: a case study of amathole district municipality (Eastern Cape) university of South Africa

Negatu, W., & Parikh, A. (1999). The impact of perception and other factors on the adoption of agricultural technology in the Moret and JiruWoreda (district) of Ethiopia. *Agricultural economics*, 21(2), 205-216.

Nigatu,Tilahun(2012). *Qualitative dataanalysis*. Retrievedfrom<https://image.slidesharecdn.com/qualitativedataanalysis-120306182822-phpapp02/95/qualitative-data-analysis-24-72>

Ochiengo, J. T. (2014). Influence of Communication on Adoption of Agricultural Innovation: A Case of the System of Rice Intensification in MWEA Irrigation Scheme. *Unpublished Master of Arts in Communication Studies thesis, School of Journalism at the University of Nairobi*.

Oladele, O. I. (1999). Analysis of the institutional Research-Extension-farmers linkage system in south-western Nigeria. *Ph. D. Thesis in the Department of Agricultural Extension and Rural Development, University of Ibadan, Ibadan. 141pp*.

- Petronila, O. (2015). *Assessing communication channels and the impact of agricultural information used by farmers in watermelon production*. (MA) thesis: a case study of yimbo east ward, siaya country, working paper university of Nairobi Kenya.
- Place, F., Adato, M., Hebinck, P., & Omosa, M. (2005). *The impact of agroforestry-based soil fertility replenishment practices on the poor in western Kenya* (Vol. 142). Intl Food Policy Res Inst.
- Rashid, S., Assefa, M., & Ayele, G. (2007). *Distortions to agricultural incentives in Ethiopia*.
- Robbins, S. P. (1992). *Essentials of Organizational Behavior*. Prentice-Hall Inc., USA. P.310. Notre Dame University, Lebanon.
- Rogers, E. (2003). *Diffusion of innovations*. Free Press, A Division of Simon & Schuster, Inc., New York. P36
- Rogers, E. M. (1995). Diffusion of Innovations: modifications of a model for telecommunications. In *Die diffusion von innovationen in der telekommunikation* (pp. 25-38). Springer, Berlin, Heidelberg.
- Rogers, E. M. (2003) - *Diffusion of Innovations, Fifth Edition*. Retrieved for: <https://books.google.com.et/books?id=9U1K5LjUOwEC&printsec=frontcover/tojet.net/articles/v5i2/523.pdf>
- Rogers, E. M. (2003). Elements of diffusion. *Diffusion of innovations*, 5(1.38).
- Sanchez Y, Guo & Kristina. (2005). *Work place Communication*. Boston, MA: Pearson. P85  
Retrieved from: <https://dspace.lib.hawaii.edu/bitstream/10790/2998/3/guo.k-2011-0021.pdf>
- Santucci, F. M. (2005). *Strategic communication for rural development*. World Bank. Retrieved for February 12/2019, from <http://www.fao.org/news/story/en/item/35571/icode/>

- Sashi, S. (2013) *Qualitative approaches in mathematics education research: challenges and possible solutions*, *education journal*. Vol.2,No2,2013,pp50-57.Retrieved for: <http://www.doi:10.11648/j.edu.20130202.14>
- Servaes, J., Jacobson, T. L., & White, S. A. (Eds.).(1996). *Participatory communication for social change* (Vol. 24).Sage.
- Severin, J., & Tankard, W. Jr. (1992). *Communication theories: Origins, methods, and uses in the mass media*. 3rd Ed. New York: Longman.
- Shidur, M. S. (2017). The Advantages and Disadvantages of Using Qualitative and Quantitative Approaches and Methods in Language" Testing and Assessment" Research: A Literature Review. *Journal of Education and Learning*, 6(1), 102-112.
- Staatz, J. M., &Dembele, N. N. (2008). Agriculture for development in sub-Saharan Africa..*Background paper for the World Development Report 2008*.
- Tadesse, D. (2008).*Access and utilization of agricultural information by resettler farming households: the case of MetemaWoreda, North Gondar, Ethiopia*.MSc thesis (Rural Development and Agricultural Extension).171 p. Harmaya University.
- Tucker, M and Napier, TL (2002).*Preferred sources and channels of soil and water conservation information among farmers in three Midwestern ."US watersheds."**Agriculture, Ecosystems & Environment*, 92(2), p.297-313.
- Waisbord, S. (2001).Family tree of theories, methodologies and strategies in development communication.Prepared for The Rockefeller Foundation. *United States: Communication Initiative*.
- Worku, T. (2000). Stakeholders' participation in policy processes in Ethiopia. *Managing Africa's soils Journal*, 17, 5-8.
- World Bank (1985).*Agriculture Research and Extension: An evaluation of the World Bank's experience*.Washington, D.C. pp. 3-100.
- World Population Review.(2016). *Ethiopian Population 2016*.Retrieved from <http://worldpopulationreview.com/countries/Ethiopia-population/> accessed in January 17/2019.no page.

## Annex

**Table 1 Focus Group Discussion with DAs and Farmers**

NO	Name of the Respondent	Sex	kebele	Occupation	Level of education	Age			Date of Focus Group discussion
						40-50	51-60	61-70	
1	KinifeBirhanu	M	Gerba	Farmer	Primary	√			March5,2019
2	AyeleDinku	M	''	''	''		√		''
3	AtileTefera	M	''	''	Not attend		√		''
4	ZenebeMengesha	M	''	''	''		√		''
5	ShewangezawKibret	M	''	''	Secondary	√			''
6	TayeNegash	M	''	''	Primary	√			''
7	BelachewAsefa	M	Mangudo	Farmer	Not attend			√	March 9,2019
8	AgonafirTassew	M	''	''	''		√		''
9	AberaMengesha	M	''	''	''		√		''
10	AlemuDagnw	M	''	''	Secondary		√		''
11	DingetTamene	M	''	''	Secondary			√	''
12	AlayuReta	M	''	''	Primary			√	''
13	GodeGebre	M	Woyramba	Farmer	''	√			March 19,2019
14	GutuGebre	M	''	''	''		√		''
15	KebedeSime	M	''	''	''	√			''
16	EndazenewLema	M	''	''	Secondary		√		''
17	AlemayehuNiguse	F	''	''	Not attend		√		''
18	ShewakenaMamuye	M	''	''	Not attend		√		''
19	TekleKontebe	M	Gerba	DA	Degree	√			March 20,2019
20	Gezaw Abate	M	Mangudo	DA	Diploma	√			''
21	MamushElefachew	M	Woyramba	DA	Diploma	√			''

Table 2 In-depth Interview with Researchers, PR experts and Journalists

NO	Name of the Respondent	Sex	organization	Occupational position	Level of education	Age			Date of Interview
						30-40	41-50	51-60	
1	Yenenesh Ego	F	MoA	Director	Bsc	√			April 12,2019
2	AkaluTeshome	M	MoA	Researcher	PhD		√		''
3	Alemayehu	M	MoA	PR	MA			√	''
4	NigusseKefekegn	M	DBARC	Coordinator	PhD			√	March 19,2019
5	Elias Getachew	M	DBARC	Researcher	Bsc	√			''
6	TakeleAyele	M	EBC	Editor	MA			√	April 27,2019
7	ShemelesAdugn	M	FANA	Reporter	BA	√			April 23,2019
8	WondwosenAlemu	M	EPA	Reporter	BA	√			May 12,2019

## **The Research Questions for Interview and Focus group discussion**

### **1. Focus group discussion for Farmers with 3 Kebeles peasant**

Biography

- Kebele, level of education, age, sex, marital status and working experience for participants?

1. Where do you get major sources of agricultural information?
2. How to Extension Agents uses of communication methods between Institutes and Farmers?  
-Scientific Periodical -Technical Reports -Publication in Journals  
-Conferences -Workshop -Seminars -Training Centers -Official calls -Radio  
and Television
3. Which communication methods are more useful in the current agricultural Communication system?
  - Interpersonal methods
  - Group methods such as demonstrations, field ' days, educational visits.
  - Mass media methods such as radio, TV, newspapers, flyers.
4. Do you have access to communication media and channels, such as radio, TV, and print media?  
-Which programs do you attend regularly?
5. Do you easily understand some technical concepts from researcher's extension agents, journalists and PR experts while they hold discussions or trainings?

### **2. Focus group discussion for Development agents with 3 Kebeles**

- Kebele, level of education, age, sex, marital status and working experience for participants?

1. How to Extension Agents uses of communication methods between Institutes and Farmers?  
-Scientific Periodical -Technical Reports -Publication in Journals

-Conferences -Workshop -Seminars -Training Centers -Official calls -Radio and  
Television

2. There are different communication approaches. These are top-down, participatory and mass communication approaches. How much the communication strategies implemented and which approaches are more acceptable on more- Jiruworeda? Why?
3. Which communication methods are more useful in the current agricultural Communication system?
  - Interpersonal methods
  - Group methods such as demonstrations, field ' days, educational visits
  - Mass media methods such as radio, TV, newspapers, flyers.
4. Do you think that farmers can easily understand some technical concepts while you hold discussions or trainings? If yes or No; what mechanism you use to help them?
5. Do you design and implement different communication strategies in disseminating agricultural development packages?

### **3. In-depth Interview for public relation experts (PR) with (MOA) and (DBARC)**

- Kebele, level of education, age, sex, marital status and working experience for participants?
1. Do you think that communication experts /public relation experts (PR) should take part in designing communication strategies in your sector?
  2. What are the roles of communication strategies to transmit development messages to farmers?
  3. How much the communication strategies implemented by agricultural researchers and agricultural extension agents are participatory and effective to achieve the proposed plan?
  
  5. Which factors are affecting agricultural information disseminating and sharing between researchers, extension agents and farmer?

### **3 In-depth Interviews for Researchers with MOA and DBARC**

Kebele, level of education, age, sex, marital status and working experience for participants?

1. What are the communication strategies/approaches are practicing in Moret-Jiru Woreda to communicate agricultural information to farmers through extension workers?
2. Which types of communication approaches is more acceptable to farmers in the selected woreda?
3. How much the communication strategies implemented by agricultural researchers and agricultural extension agents are participatory and effective to achieve the proposed plan?
4. What factors are affecting agricultural information disseminating and sharing between researchers, extension agents and farmer?

### **5. In-depth Interview for Mass media persons/Respondents**

➤ Organization and working experience for participants?

1. How mass media is useful in the current agricultural Communication system?
2. Are there farmers who do not understand the language being in use for agricultural information disseminations in your program? If yes what mechanisms do you use to help them?
3. Which factors are affecting agricultural information disseminating through mass media to the audience?