St. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

Institute of Agriculture and Development Studies

ASSESEMENT OF RURAL COMMUNICATION FOR AGRICULTURAL DEVELOPMENT: THE CASE OF NONNO BENJA WOREDA, JIMMA ZONE, ETHIOPIA

By

GEBREYESUS WEREDE

JUNE 2014

ADDIS ABABA, ETHIOPIA

ASSESEMENT OF RURAL COMMUNICATION FOR AGRICULTURAL DEVELOPMENT: THE CASE OF NONNO BENJA WOREDA, JIMMA ZONE, ETHIOPIA

By

GEBREYESUS WEREDE

ID NO- MARD /0188/2005

A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ART IN RURAL DEVELOPMENT

JUNE 2014

ADDIS ABABA, ETHIOPIA.

ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

INSTITUTE OF AGRICULTURE AND DEVELOPMENT STUDIES

ASSESEMENT OF RURAL COMMUNICATION FOR AGRICULTURAL DEVELOPMENT: THE CASE OF NONNO BENJA WOREDA, JIMMA ZONE, ETHIOPIA

By

GEBREYESUS WEREDE

APPROVED BY BOARD OF EXAMINERS

_____	_____
Dean, Graduate Studies	**Signature and Date**
_____	_____
Advisor	**Signature and Date**
_____	_____
External Examiner	**Signature and Date**
_____	_____
Internal Examiner	**Signature and Date**

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Dr. Abate Bekele. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Gebreyesus Werede _____

Name Signature and Date

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

Dr. Abate Bekele _____

Advisor Signature and Date

TABLE OF CONTENTS

ACKNOWLEDGEMENT

Above all I would like to thank God for His love and support during my marathon race. Next to him, I would like to thank my advisor Dr Abate Bekele for his technical advice and valuable comments throughout the study period.

My deepest gratitude also goes to the Nonno Benja Woreda Agricultural office staffs for collecting the data and giving relevant information which strengthen my study. My special appreciation goes to my classmates for giving me updated information when I was busy in a field work. Things were not really easy if my work partners understood me. So my deepest thanks go to them for their credit. Finally, I thank my family for giving me unreserved love.

ABBREVATIONS

AFRRI	African Farm Radio Research Initiative
BoA	Bureau of Agriculture
BoFED	Bureau of Finance and Economic Development
CSA	Central Statistics Agency
CSOs	Civil Society Organizations
DAs	Development Agents
EPRDF	Ethiopian People Revolutionary Democraticfront
FTC	Farmers Training Center
GTZ	Gesellschaft fur Technise Zusammenarabit
HH	Household
KII	Key Informant Interview
MoA	Ministry of Agriculture
MoE	Ministry of Education
MoI	Ministry of Information
PRA	Participatory Rural Appraisal
SNNPRS	South Nations, Nationalities, and Peoples'Regional State
WB	World Bank

LIST OF TABLES

ABSTRACT

The main objective of this study was to assess the effectiveness of rural communication in relation to the agricultural sector in Nonno Benja Woreda, Jimma Zone, Oromia Region, Ethiopia from February, 2014 to May, 2014. A multi-stage sampling technique was used to collect data from 124 households in the study area. SPSS Version 20 was used to analyze both the qualitative and quantitative data in a descriptive statistics. The results revealed that the major communication tools used by the government were face to face conferences, local radio and the print media. The methods employed, basically, were face to face conferences and participatory approaches which range from mass gatherings to small groupings as well as individuals assisted by model farmers. More than 70 percent of the respondents took policy trainings of varying level and this enhanced their capacity to undertake development activities. The institutional framework of rural communication was found to comprise the huge extension system which was laid down from center to the villages at the grass root level. The FTC institutions along with the extension agents were in charge of communicating the extension messages to the farming communities. The regional media agency has also its branch at the zonal level whose daily broadcast in the local language was one of the communication channels to provide development messages. The low capacity of the FTCs, the extension agents were overburdened with non-extension activities which rather deteriorated their performance as well as acceptance among the farmers and hence they were rarely heard by the farmers. The importance of local radio in the communication process was highly rated but it suffered low level of access and usage. The study concluded that rural communication should be revisited in such a way that avoids social as well as political barriers in the communicative process; the physical as well as overall institutional capacity of the FTCS should be enhanced so as to be proper schools of technology for rural farmers; and the physical as well as institutional problems that hampered the efficiency and acceptance of the DAs should be resolved by revisiting their assignments. They should also be given attention and offered with some affordable but necessary facilities to help them provide timely support for the farmers.

Key words: Rural communication, Nonno Benja Woreda, Jimma Zone, Ethiopia,

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

Development is a multidimensional process of action, organization and communication and involves economic, political, social and cultural factors. Rural development is one of its sections with a process of action with economic, political, cultural and social dimensions in the rural areas. To put it differently, agricultural development is a process whereby the farmers possess modern knowledge and information. It is imperative for the farmers to have and accept the necessary technologies, innovations and knowledge for the rural development. Therefore, communication plays an important role in the process of rural development. The communication bridges built between public institutions, rural organizations and people generate the opportunities to ensure share of knowledge and experience needed for rural development (GTZ, 2006).

'Communication for development is used for: people's participation and community mobilization; decision-making and action; confidence building, for raising awareness, sharing knowledge and changing attitudes; behavior and lifestyles; for improving learning and training and rapidly spreading information; to assist with program planning and formulation; to foster the support of decision-makers.' In this approaches, rural people are at the centre of any given development initiative and view planners, development workers, local authorities, farmers and rural people as "communication equals", equally committed to mutual understanding and concerted action(Heemskerk, W. *et al*, 2003).

'Rural communication is an interactive process in which information, knowledge and skills, relevant for development are exchanged between farmers, extension/advisory services, information providers and research either personally or through media such as radio, print and more recently the new "Information and Communication Technologies" (ICTs).' In this process all actors may be innovators, intermediaries and receivers of information and knowledge. The aim is to put rural people in a position to have the necessary information for informed decision-making and the relevant skills to improve their livelihoods. Communication in this context is therefore a non-linear process with the content of data or information (GTZ, 2003).

Advancement in agriculture is possible only through training the farmers for the purpose of learning new ideas and techniques and their firm adoption. Making the farmers embrace the innovations in the rural areas and their firm adoption is made possible via communication channels. There are four major channels to convey the innovation from the universities (or scholars in respective fields) to the farmer: peers and neighbors (informal communication), seller and wholesalers (commercial communication), public institutions and agriculturally specialized university units (public communication, mass media devices (mass communication). The farmers become aware of the innovations and develop interest in learning and adopting them via these channels (Turkdoğan, 2006).

In addition to these, the media ensures publication and popularization of rural issues in the general public. It supports the educational and awareness activities. It specifically contributes to facilitating the technical information. The communication networks set up in the rural areas facilitate access by the local people to the service and the information. Therefore, it is evident that communication plays a remarkable role in rural development.

In the rural communication activities in different parts of the world, radio, television, press, computer, internet, other information systems, videos, films, theatres, festivals, meetings, panels and seminars are widely used. In the rural areas, where traditional relations are prevalent, face-to-face communication is a commonly used method (FAO, 2001).

Rural communication is essential to achieve participation and empowerment which are the two key elements of sustainable development initiatives. Within this framework, communication is mainly used to carry out various functions. Some of the key functions among others are: exchange of information and building consensus on common goals and assist in identifying and defining project objectives and support the achievement of project objectives. It can also facilitate the active and conscious participation of all stakeholders at any moment of the project cycle (problem identification, planning, implementation, monitoring and evaluation) and promoting the sustainability of the development efforts (Moetsabi and Anyaegbunam, 2004; Aoka, 2010). Furthermore, participatory rural communication can bring together different

stakeholders and groups into sustained mutual interaction, and create conducive environment to enable the vulnerable groups of the society to have an influential voice in the decision making process of development interventions (Quebral, 1975). Communication for rural development involves establishing linkages among all stakeholders; developing common understanding, language and channels for participatory communication; and responding to information and training needs of those who are involved in it. Moreover, effective rural communication involves the conscious planning and use of viable methods, contents, channels, tools of communication and above all gives a heightened attention to the warm involvement of the target communities (Ramirez, 1997; Davies,2004).

Nowadays, an increasing number of development initiatives in the third world countries emphasize the use of communication as a strategic tool; and new opportunities are emerging for mainstreaming into national policies to combat poverty, especially in agricultural and rural development. Nevertheless, the promotion of adequate communication for development policies, including capacity building efforts should start with a reflection about trends, opportunities and priorities at the field level considering best practices, needs and opportunities for collaboration both at the national and sub-national levels. This analysis would also allow to build common understanding about the differences in applying communication in different political and cultural contexts, and to agree on strategies considering opportunities and resources available (WFP, 2008).

Recently, efforts are well underway in developing countries including Ethiopia to eradicate poverty and accelerate socio economic development (OSSREA, 2011). Most of the national policies are geared towards achieving the Millennium Development Goals set by the United Nations; and growing attention has also been seen in the necessity and importance of popular participation and empowerment. Thus, national, regional as well as international focus has been laid towards rural participatory development that raises collective action at grass root levels. Rural communication has become an important tool to achieve the development goals; and hence, emphasis has been given to foster it through raising popular participation, setting up media institutions and rural agricultural extension system (WCCD, 2006).

The current trend in the Ethiopian context shows that, the country is striving towards achieving accelerated sustainable development which gives priority to modernizing and commercializing the subsistence agricultural practice. This goal could be achieved through raising popular participation and swift transfer of modern technologies (OSSREA, 2011). Hence, the need to put in place participatory effective rural communication has been mandatory. To this effect, efforts have been underway to foster rural communication through establishing institutional frameworks such as rural extension system at all levels ranging from the centre to village level, media institutions that basically focus on dissemination of the agricultural and rural development messages, and training and deployment of massive number of extension personnel at local level (Kassa,B and Deginet,A.(2004). Since 2006, further concerted measures were taken to strengthen the rural communication system all over the country. Strategies to promote the organized participation of the farming communities in the communication process were undertaken (BoA, 2011). However, the viability of the entire process, the problems and constraints that arise within the rural communication system and the outcomes that it has been yielding has rarely been studied.

1.2 Statement of the problem

Rural behavioral change communication, though useful in itself, will not be able to bring about rapid socio-economic development when used under series of barriers and challenges. Many of the problems are institutional in their nature and associated with the level and type of interaction between different actors. As noted by Santucci (2005), 'the problems are caused by lack of coordinated planning, poor linkage among stakeholders, and absence of a coordinated monitoring and evaluation of the implementation. In addition, the problem is more pronounced with little or no involvement of target farmers or their organizations. Weak communication structures, methodologies and tools often result in poor identification of farmers' needs and priorities, inappropriate research programs, poor or irrelevant extension information and technologies; and finally, low farmers' take up of innovations.

The Ethiopian government has given due attention to realize multidimensional development of the country through Agricultural Development Led Industrialization Strategy. The strategy has been fostered through different rural communication strategies, tools and appropriate

institutional framework. Based on the Rural and Agricultural Development policy of the country, efforts have been underway to bring about attitudinal changes among the farming communities in order to facilitate the smooth adoption of technologies and improved practices.

In an extended attempt of the government, rural institutions have been fostered and capacity building initiatives have been in place. The importance of rural communication in achieving societal transformation has also got important consideration by the government; and this has explicitly been revealed in the policy document. On the basis of the policy prescriptions, efforts have long been underway to communicate the development strategies among farmers using various institutional mechanisms and methods. However, the nature, method, content and tools of communication are not without drawbacks. The pace of dissemination of new ideas and technologies among the rural communities has been facing considerable problem mainly because of poorly designed and implemented communication interventions. Because of age-old traditional and backward thoughts and practices, the apathy of the local people to grasp improved and modern knowledge associated to agricultural extension has been problematic; and the need to identify the entire deficiencies of the rural communication practice has been of a great importance (MoI, 2002).

This particular study attempts to explore the effectiveness of the rural development communication intervention by focusing on the nature of communication, methods of communication, its contents, the tools used to communicate, and the changes so far achieved as well as the major problems that the intervention has been encountering. Effectiveness of communication tools, the manner in which the strategy implemented, and the efficiency and effectiveness of organizational set up and its core competence were main areas that require analysis. In this regard, reaching rural communities through rural communication is of paramount importance in bringing about behavioral changes that considerably contribute to eradicate poverty and realize a meaningful development. Therefore, concretizing the relevance of effective communication to rural agricultural development and transformation is the major research gap.

1.3. Research questions

The research questions of this paper will be the following:-

i. Which communication tools are used for agricultural communication?
ii. How can the viability of language and content of the communication be examined?
iii. Is the competency and organizational set up of agriculture sector effective?
iv Which delivery methods are appropriate for agricultural communication?

1.4. Significance of the study

This study primarily helps the agricultural and rural development sectors to undertake measures that could improve the institutional capacity and efficiency with regard to extension communication. The regional government can also make use of the results so as to make policy decisions in matters pertaining to rural development, such as change in the deployment and assignments of the extension personnel as well as media institutions. Finally, as this is the area which is less explored before, the results of this study can provoke scholars and practitioners to undertake further studies.

1.5. Research objectives

The main objective of the study is to assess the effectiveness of rural communication among farming communities in Nonno Benja Woreda of Jimma Zone in relation to the agriculture sector, Oromia region, Ethiopia.

Specifically, the study is intended to:

1) assess the nature and type of communication tools used for agricultural communication;
2) examine the viability of language and content of the communication;
3) appraise the effectiveness of institutional capacity of agricultural sector, in terms of core competency and organizational set up; and
3) assess the appropriateness of methods of delivery of agricultural communication

1.6. Scope and limitation of the study

Availability and willingness of the respondents were the limitations during the study. Due to time and budget constraints, the study was limited to focus on only one Woreda of the region. It was also limited to assessing the effectiveness of the rural communication with special emphasis the delivery of agricultural extension messages in terms of content, method, tools, and language.

1.7. Definitions of terms

Communication for Development is defined as the planned and systematic use of communication, through inter-personal channels, ICTs, audio-visuals and mass media (Aoka, 2010).

Rural Communication is conceptualized as an interactive process in which information, knowledge and skills relevant for development are exchanged between farmers, extension or advisory services, information providers and research either personally or through media such as radio and print(Aoka, 2010)..

Effectiveness of Rural Communication refers to the viability of the overall practice and effective application of tools and methods to enhance public participation, exchange of knowledge, skills and experiences that contribute to the achievement of the development policy goals(Aoka, 2010)..

The Communication tool refers to the media alternatives employed to communicate the rural development policies. It encompasses publically owned electronic and print media as well as the predominantly used face-to- face interaction scheduled and conducted by both the local leadership and extension agents in order to communicate development plans(Aoka, 2010)..

Methods of Rural Communication refers to those mechanisms that have been employed to disseminate development messages to farming communities in the region. These include face to face mass discussions, group meetings, individual support by the extension agent, demonstrations in the farmers training centers, field visit by households and model farmers' guidance(Aoka, 2010)..

Contents of Rural Communication refers to the thematic areas of the communication process. The contents are mainly related to the agricultural development plans, technologies, improved practices and inputs which are intended to enhance the productive capacity and the yield of the farmers(Aoka, 2010).

1.8. Organization of the paper

The first chapter comprises the introduction of the research consisting of the statement of the problem, research questions, significance of the study, research objectives of the paper, scope and limitations of the paper and definition of main terms respectively. The second chapter deals with the relevant literature reviewed from various sources. The third chapter presents the research methodology with background information about the Woreda and the study kebeles, the type of research design used the sampling techniques, the data collection methods and also data analysis and interpretation. Chapter four presents the major research result and discussions; while chapter five discusses the conclusions and policy implication based on the findings of the study.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

In this chapter, literature that is relevant and available on the subject of the research problem is discussed. Concept of development and factors that could influence rural communication are discussed in detail. Literature on rural communication and other related issues is highlighted on three dimensions: globally, in the context of Africa and Ethiopia. Development of communication and participatory approaches to communication development are discussed briefly. Problems faced by rural communities in developing countries are highlighted. For the purpose of the study, it was necessary to obtain an overview of communication development in Africa and Ethiopia.

2.2 Concept of Development

As noted by Melkote and Steeves (2001), development conceptions and interventions are not new and have occurred throughout human history. However, development in its modern form dates back to the World War II. The major cause of emergence of the new form of development agenda since the end of the war was due to a strong international concern in preventing the future war.

Primarily, development as the major agenda of the second half of the 20th century has been articulated in recognition of underdevelopment in the third world countries (Todaro and Smith, 2009). Since then, the world has been experiencing tremendous efforts in shaping the global development milieu, its conceptions and practices both at the academic circles as well as policy levels.

The concept of development is broad; and embraces all aspects of human life. In general, Dissanayake (1985) defined it as “the process of social change whose goal is the improvement of the quality of life of all or the majority of the people without doing violence to the natural and cultural environment in which they exist and which involves the generality of the people as closely as possible in this enterprise”. Prominence has been given to the qualitative and all inclusive aspect of definition without undermining the significance of quantitative aspects.

According to Todaro and Smith (2009), “it is a multidimensional process involving major changes in social structures, popular attitudes and national institutions as well as the acceleration of economic growth, the reduction of inequality, and the eradication of poverty.” This definition is so broad that it encompasses the growth or quantitative as well as the qualitative aspects of development. Development economists and sociologists further elaborated the conception and came up with more sophisticated views.

Earlier in the 1970s, Dennis Goulet, (1971), made an attempt to come up with all inclusive definition which embraces the major economic and social objectives and values that the societies strive for. He distinguished three basic components or core values in the wider meaning of development which he calls life- sustenance, self esteem, and freedom. Hence, development is conceived as the sum total of fulfillment of these three values (Goulet, 1971). Thus, development is not a mere achievement of economic growth; but, the changes that are triggered by the quantitative growth and the freedom that the society experiences (Sen, 1999). Development is unthinkable without communication. For instance, the rural-urban economy linkage, trade barterer, exchange of production and market information can be highlighted.

2.3 Factors affecting rural communication

From the literature, it is evident that a number of factors are known to affect rural communication. Thus, the effectiveness of rural communication is dependent on a host of socio-economic and physical factors. Eadie (2009) enumerated various variables that affect it. Gender is one of the factors that have a strong influence on the course of communicative process. Gender influences the expectations and perceptions of women and men, as well as roles, opportunities, and material circumstances of women’s and men’s lives. Because of the existing perceptions of gender, communicators are influenced to the extent that the sexist and gender biased approaches prevail. Gender shapes our style of communication to a great deal. Researchers have shown that, most often, communications have been reinforcing the existing social views of women and men; and thus, effective communicators are those who understand the pivotal role that gender plays in both cultural and personal life. It is further argued that ethnicity, culture and freedom of expression, too, affect the course of any communication (Eadie, 2009).

The nature and type of policies is also one of the factors that influence the effectiveness of rural communication. Furthermore, factors that influence effectiveness of communication are policy, institutional capacities, nature of participation of the stakeholders, and the media strategy. In policy, it was meant that they are the general guidelines that determine the content, the method, the channel, and above all the nature and level of involvement of the stakeholders. Hence, the effectiveness is influenced by the type and nature of policies of communication (FAO, 2005).

One of the crucial factors in affecting the effectiveness of communication is the capacity of institutions involved. The institutional capacity (rules and regulations, plans and practices, training and skill of communicators) has a lot to do with the effectiveness of the communication intervention. In the capacities and nature of stakeholders, it is all about the target community and those who are involved in the process. The literacy level, gender and ethnic background of the target population should also be taken into account ahead of planning rural communication (Singh, 2009).

Nature of participation can also matter a lot. In such an environment where there is no possibility for free and democratic participation of the target population, there would exist a vertical, top-down and authoritative communication in which the participants are set to be passive recipients of the messages; and hence, it can be hardly known whether or not the message has won acceptance. Choice of methods and channels can also be of a paramount importance in determining the effectiveness of communication (FAO, 2005).

Similarly, according to GTZ (2006), the situation concerning communication in rural areas of developing countries is characterized by:

i. A dearth of information (absence of providers and of local communication content);
ii. Conflicting messages (difficult to know what is relevant/correct information);
iii. A fragmented market information with many individual clients or client groups;
iv. Relatively few clients scattered over a large area;
v. Structural transformations leading to constantly changing channels and content, and lack of the necessary skills for communication; and
vi. Lack of well developed ICT infrastructure and low levels of ICT skills.

In rural areas, communication needs and available channels are facing tremendous changes through structural transformations. Subsistence oriented farming remains the basis for food security especially in disadvantaged areas, while there is a general shift to move intermediate farmers into market-oriented production. Market-oriented farmers need to stay competitive in an increasingly global business environment. While agriculture remains the mainstay for rural people, information and skills for alternative livelihoods gain in importance, not only as an exit strategy, but also for the increasing division of labor. Each of these groups of farmers has specific communication needs and capacities for innovation, management and finance. However, client/demand-oriented service provision for innovation, information, qualification and local organizational development remains the key driver. Ongoing decentralization of government functions and services improve the prospects of local political decision making. These reform processes and their opportunities and consequences need to be communicated properly to rural people. Lobbying by organized groups, as a form of communication to politicians, becomes a necessary activity to voice rural interests. On the other side, efforts to close the information gap and, in particular, the digital divide in rural areas, have been supported by the wider availability and accessibility of communication technologies and infrastructures like internet, rural radio and mobile phones (GTZ, 2006).

2.4. Development Communication

Development communication has its origins in the post world war II international aid programs to countries in Latin America, Asia and Africa that were struggling with poverty, illiteracy, and infrastructure building. Development communication commonly refers to the application of communication strategies and principles in the developing world. It is derived from theories of development and social change that identified the main problems of the post war world in terms of lack of development or progress equivalent to western countries (Gomez, 1997; Inagaki, 2007 cited in Alemayehu, 2009).

Development theories have their roots in mid- century optimism about the prospects that large parts of the post colonial world eventually catch up, and resemble western countries. After independence in Africa and Asia, a dominant question in policy and academic quarters was how to address the appalling disparities between the developed and underdeveloped parts of the

world. Development originally meant the process by which third world societies could become more like western developed societies as measured in terms of political system, economic growth, and educational level. The implicit assumption was that there was one form of development as expressed in developed countries that underdeveloped societies needed to replicate and emulate. Hence, this strongly called for development communication (Waisbord, 2003).

Thus, development communication arose as a product of modernization among the modernizing institutions that were talked about in the modernization theory of development, such as: factories, schools, and the mass media. The mass media were seen to be more important than the other two as a liberating force that would help pull countries out of their backwardness, especially through instilling modern values in traditional individuals. The concept of development communication applied to the speedy transformation of country from poverty to a dynamic state of economic growth makes possible greater economic and social equality and the larger fulfillment of human potential (Quebral,1975).

2.4.1. Participatory approaches to development communication

The communication media solely worked on a dissemination of the western ideas of modernization and development to the newly constituted third world nations. The western devised their policy frameworks towards achieving these goals; and international aid was also directed towards this view. It was widely believed that transfer of knowledge, practice, industrial production, and capitalist democratic form of government and expertise would benefit the underdeveloped countries, and help them become more like western. Consequently, the third world countries became the target of new mechanisms of power embodied in endless programs and strategies. Their economies, societies, and cultures were offered with new objectives, projects, and programs to be implemented in the manner that the western elites would like it to be. Thus, development projects were brought to the local people by the experts who never consider the local realities and dynamics (Wilkin, 2001; Willis, 2005).

Continuous attempts on the part of third world governments to implement centrally planned and western – galvanized development projects could never achieve their goal mainly because of the

local apathy that was produced due to the imported nature of the projects. The end of 1970s, thus, marked with the emergence of academic writings that emphasized the importance of participatory approaches to development that shifts the entire paradigm from top – down to bottom up, expert approach to participant – centric, vertical to horizontal and one-way communication to two-way communication (FAO, 2006).

The idea of participation had to pose a serious challenge to centralized planning that is characterized by the dominance of elite experts in identification of problems, setting targets, devising execution mechanisms, and telling the beneficiaries how they should execute the projects. The need to participation has founded on the belief that the village is seen as the focal point of development; and hence, all aspects pertaining to village life need consideration by development communication planners. The creativity of the people and their willingness to development has to be tapped. Development is not understood as a statistics; but, in relation to actual human beings living in a specific socio-cultural environment (Maguire, 1984; Dissanayake, 1985).

Prominence was given to the participatory approaches advocated by writers, such as Robert Chambers and Arturo Escobar in recognition to the need for "putting the rural people first" in those development projects that were intended to alleviate poverty in the third world (Chambers, 1983; Singh, 2009). As mentioned earlier, the decade of 1970s was marked with a number of changes in the development landscape in which the growth model of development was first seen as no more a panacea and the idea of "the basic needs approach" was also proposed. Since this decade, building on the already existing thoughts of Friere's philosophy, there were many voices to add a fuel of quest to the indispensability of participation (Mefalopulos and Tufte , 2009).

Since early 1970s, voices of both development practitioners and academics from developing countries have raised fundamental questions about the western domination of the work and debate in development. The questions include whose voices the concerns of the poorest and most marginalized populations; how is policy developed, and who participates in the decision making processes. At the core of these concerns lies the quest for participation of the "voiceless" from third world countries, such as: the marginalized groups, the poorest sections, as well as the

disabled, and women in the international policy development and debate (Escobar, 1995; FAO, 2005).

Historically, it is evident that the notion of participation has emerged both from sociological as well as economic angles. Paulo Friere's emphasis was placed primarily on the emancipation of humanity; and thus, participation of the individual on those matters that pertain to his living was an instrument. For Friere, the apathy and bad feeling of the peasant emerges because of that he knows the 'boss '; or the elite knows everything and took the position to run things on behalf of him. The knowledge of lack of power to take part in what is important for him lets the peasant apathetic and feels oppressed (Friere, 2009). Friere's work on adult literacy contributed a lot in defining the sociological aspect of participation and gave strength to the participatory model of development discourse. Thus, the need for popular participation to reduce marginalization and exclusion of the billons of vulnerable and poor people in developing countries was taken as a pivotal tool for economic development both at national and super national levels (Mefalopulos, 2008).

Since the introduction of the second development decade of the UN, (i.e; 1970 – 80), the issue of participation became the motto for international development actors. From the large UN summits through 1990s to the world social forums in recent years, with a growing voice, the civil society has articulated questions and concerns, and actual practice. Transnational advocacy networks within a growing global civil society have provided spaces for the participatory paradigm to evolve in to an ever more resonant quest for the contributions of the voiceless, the poorest, and marginalized groups. As promises of the past dominant paradigm fail to materialize, while the demand for a shift from expert driven models to endogenous ones grew steadily (Mody, 2003; FAO, 2005).

Participatory communication is inseparably linked with the participatory development model. Taking in to account the one- side and top down approach of electronic communication which has hardly any room for grass root participation, face-to-face or person-to-person communication which involves open discussions, debate and dialogue among the local communities is highly advocated to demonstrate participatory communication in practice (Mefalopulos and Tufte,

2009). To this end, Coldevin(2003) argues that “interpersonal communication is the fundamental participatory tool to achieve change in rural areas which no amount of other media can do so “.

2.4.2. Development of Communication in Africa

The whole story of development in Africa begins with the post – colonial period since 1960s. It is obvious that the colonial period in Africa was marked by the political and economic dominance characterized by looting the resources, assimilating the indigenous culture and, above all, institutionalization of western values instead of the local ones. The period was also marked with the absence of domestic economic policies in the colonized nations. Soon after independence, the motto was to develop the economy; and thus, the newly independent states undertook such measures that could transform the subsistence sector, and erecting industries that were to substitute the import (Todaro and Smith, 2009).

As noted by Kabuya (2011), most African leaders misunderstood the development concepts or ideas by embracing the African socialist system as a path of economic development. The leaders focused on a strong nationalist sentiments and economy of affection; and could never strike the right end of the stick with regard to rural development. The period of post independence for most of newly freed nations was filled with both enthusiasm as well as dilemma. There was a heightened ambition to modernize the subsisting economy one hand; and there were no clear domestic policies that could guide towards the attainment of the goal.

According to Hyden (1983), “besides capital scarcity to undertake self-reliant projects, the African leaders were grappled with restoration of indigenous form of economic and social organization in African societies dealing with peasant mode of production, governance, policy making and management”. This affected economy denotes a network of support, communications, and interactions among groups connected by blood, kin, communities, and village affinities.

Even though the post-independence conception and articulation of national economic development in Africa was seen to be in a dilemma, the wave of the modernization paradigm from industrialized nations in general, and the indirect influence from the previous colonial

masters in particular were there to shape the routes of development and the resultant development communication in Africa at large (White, 2008). Africa's post independence economic development was mainly sought to follow the prescriptions of the dominant modernization paradigm. However, many independence leaders were found in doing quite the opposite. They chose to use the colonial broadcasting and press system; colonial transport system; colonial agricultural extension and communication system; colonial education system; and above all colonial state apparatus. Thus, they were not able to go far from the traps of the dominant way of communication so far existed, even though they were ambitious to put in place participatory approaches that were deemed to raise engagement of the local people. Though there were some fragmented attempts of change in some corners of the continent, the scenario continued to exist until 1980s dominantly (Murphy, 2007).

Since 1980s, emphasis in African communication research has been given to the validity of the local knowledge, traditional forms of organization, and the indigenous modes of communication in African development communication landscape. This showed a reversal of the conceptions of modernization and state-centered models of development (Alhassan, 2004).

2.4.3. Development of Communication in Ethiopia

2.4.3.1 The policy environment

Ethiopia is a country which is known for its uniqueness in Africa to stay independent in the era of colonization. However, it is argued that the country, though not directly colonized by the western powers, in matters pertaining to policies, it had never been free from direct and indirect influences from the western giants of the period (Todaro and Smith, 2007). The country has less record of history in development in the global arena of modernization than its prominence in civil war, internal unrest and totalitarian leadership until 1994 (Rotberg, 2005). There are evidences that during the Monarchial Regime, there were tendencies to follow the foot prints of the industrialized nations by embracing the dominant paradigm; and hence, influences were prevalent in many aspects such as introduction of western type of education and media. The military government used to expand the mass media to disseminate the Marxist-Leninist thoughts in which one-way and top down mass communication was highly emphasized (Markakis, 1972).

It was in early 1970s, that the government along with the international bilateral agencies commenced the Integrated Rural Development projects; and began the diffusion model of communication among some selected rural communities. With the emergence of international focus towards rural development, the government set up Integrated Development programs. Though the interventions were limited to few pockets of the rural areas in the country, the attempt was one that introduced the diffusion model of agricultural extension in which new knowledge, technology and practices were transmitted from research and extension personnel to the rural people in order to modernize the country's agriculture. However, these projects did not last long; and also could not place any significant impact in improving the country's agricultural practice (Eshetu, 1974).

The current trend in development communication emanates from the country's economic development policies in which agricultural transformation has got a heightened emphasis that the transition towards industrialization could be made possible by transforming the practices and productivity of agriculture. Thus, agriculture has got the leading role in the country's effort towards prosperity (MoI, 2003). The Rural and Agricultural Development policy further reiterated the importance of participatory communication among the rural agrarian communities with the belief that the long-existed poverty and food insecurity could only be alleviated if the rural labor is addressed and communicated in such a manner that raises their voluntary involvement and release of labor in the process of rural policy implementation. The policy document also emphasizes the mode of rural participatory communication. The rural households are organized in such a way that enables them discuss, debate, decide on the development plans and coordinate their labor and local resources for collective development.

Collective farmers' discussion or face-to-face approach has got important emphasis where the farming communities participate in matters that require their views and consent. Even though there is no full-fledged development communication policy; it has been incorporated in the aforementioned rural development policy document.

2.4.3.2 Participatory approach of rural communication in Ethiopia

The Rural Development Policy and Strategy document of the FDRE has also spelt out the nature and extent of participation to be raised among rural communities both in the planning and implementation as well as policy communication. The rationale behind participation is that, the rural transformation could be made possible provided that the sole owner of the factors of production; i.e., the farmer, gets informed, believes and engages in the process (MoI, 2002).

Thus, in order to achieve voluntary adoption of technologies and improved practices that the government provides, the process of communication is sought to be participatory. The policy emphasizes that in order to achieve rapid rural development; the most important thing is winning the consent of the farmers through their democratic participation.

Hence, it is evident that participatory rural communication has been supported by the major policy documents and institutional frameworks. One can conclude that agricultural and rural communication in the country is geared towards raising public participation underscoring that without participation nothing can be transformed. The Oromia regional bureau has also given due attention to this participation.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

The purpose of this chapter is to provide an overview of the different phases and steps followed to conduct the research.

3.2 Description of the Study Area

Nonno Benja Woreda is one of the Woreda as in Jimma Zone of the Oromia Regional state. Its altitude ranges from 1,380 to 1,680 meters above sea level. However, some points along the southern and western boundaries have altitudes ranging from 2229 to 2870 meters above sea level. The landscape of Nonno Benja Woreda includes Mountains, high forests and plain divided by valleys. A survey of the land in this Woreda shows that 89.1% is arable or cultivable; 2.7% pasture; 2.8% forest; and the remaining 5.4% are considered swampy, degraded or otherwise unusable. Chat and coffee are important cash crops for the Woreda. The Woreda is characterized by three climatic zones, namely: Dega, Weynadega and Kola. Dega accounts for 16 percent; Woina Dega accounts for 62 percent and Kola accounts for 22 percent of the total area of the Woreda. There are 22 Farmers Associations with 20,434 members; and 12 Farmers Service Cooperatives with 16,256 members.

The 2010 national census reported total population for the Woreda to be 146,675, of which 74,698 (50.93%) were men and 71,977 (49.07%) was women. The majority of the inhabitants are Muslem, with 90.23% of the population reporting they observed this belief; while 8.44% of the population reported they practice Ethiopian Orthodox Christianity; and 1.15% are Protestants Oromiffa is spoken as the first language by 88.71% of the population; while 4.1% speak Amharic; 3.28% speak Kullo; and 2.55% of the population speak Yemsa language. The remaining 1.52% of the population speak all other primary languages according to (CSA, 2010) report.

In the same Woreda, there is one farmers training center constructed in each of the four Kebele administrations. With regard to the media of communication, the Jimma Zone Radio Broadcast service, which broadcasts from the zonal center, covers the whole area of the Woreda. Its medium of communication is Amharic and Oromiffa.

3.3 Research Design and Sampling Technique

The study employed a cross sectional survey design with quantitative and qualitative methods. In cross sectional survey, information on all variables was collected at specific point in time, and hence, causal inferences were very difficult to make. The quantitative aspect of the study has mainly focused on description of key demographic profiles, measurement of selected socio-economic variables and analysis of relationships among the dependent and independent variables. The qualitative aspect of the study has mainly dealt with narration of contexts and examination of attitudinal as well as perceptual issues. The study was conducted in February 2014 to June 2014.

Nonno Benja Woreda was selected through multi-stage sampling techniques, for which commonly used probability sampling technique was applied in a situation where the ultimate unit of selection required certain series of stages in large scale studies of this kind. At the first stage of sampling, Jimma Zone was selected from the list of 20 zones of Oromia region using simple random sampling technique. At the second stage, Nonno BenjaWoreda was selected from the total of 17 Woredas of Jimma Zone randomly. At the third stage, four Kebeles, namely: Alga, Benja, Amdo and Wayu from 21 Kebeles were randomly selected. The sample size for the study was calculated by taking 90% as a confidence interval; and hence, the total size of households of the four kebeles was 124.The size of the ultimate sampling units was determined by using the proportionate sampling technique, giving a size of 35, 15, 41, and 33 from Alga, Benja, Amdo and Wayu kebeles, respectively.

The selection of Key informant interviewees was done using purposive sampling technique. In each selected Kebeles of the study, 2 key informants which includes: Kebele administrator, extension worker, and Kebele women representatives, giving a total of 8 key informants. At Woreda level, head of agricultural extension division and head of public relations and feedback unit were interviewed.

3.4. Data Collection

The main data for this study generated both from primary and secondary sources. As to the primary sources, information was collected from three categories of sources, namely: household interview, key informant interview, and field observations. In view of supporting the information

gathered through primary sources, secondary data related to institutional issues with regard to the management and feedback system of communication and other demographic data were collected from pertinent Regional, Woreda and Zonal government offices.

The study employed both qualitative and quantitative data collection tools. The bulk of the data was collected through household questionnaire based survey interview. A checklist for qualitative data was used to collect data from key informants. Moreover, field observation of institutional set ups and facilities of FTCs was done in each sample Kebele.

Three development agents of the Nonno Benja Woreda Agricultural and Rural Development Bureau were employed as enumerators to collect data. Before the commencement of the data collection, the researcher gave a half-day long training on the main field tasks including household listing and mapping, management of respondents, ensuring of quality data collection, time management and the like. Pre-testing of the questionnaire on 10 sample respondents was also made to check if there are be any unclear or added questions. After making some amendments on the pre-designed questionnaire, the data were collected.

3.5. Data Processing and Analysis

Following data collection, the data collected was coded, cleaned and verified, and entered into the SPSS Version 20 computer software package for analysis. Data initially analyzed using descriptive statistics, such as: mean, percentage frequencies, and mean were computed for different variables, and the results were described /interpreted in tabulation and cross tabulation.

CHAPTER FOUR

RESULT AND DISCUSSION

4.1. Result

4.1.1. Descriptive analysis result

4.1.1.1. Socio-demographic characteristics

In the socio-demographic characteristics of the respondents, data on the sex, migration status, age, household size, literacy status, grade level, religion and household headship were collected.

Table 1: Frequency distribution of the respondents on these characteristics.

Characteristics	Frequency (N=124)	Percent
Sex of respondents:		
Male	98.46	79.4
Female	25.54	21.6
Migration status:		
Non-migrant	117.18	94.5
Migrant	6.82	5.5
Age of respondents:		
18-30	53.69	43.3
31-40	43.52	35.1
41-60	13.02	10.5
>60	13.77	10.2
Household Size:		
0-3	14.26	11.5
4-6	63.86	51.5
>6	45.88	37
Literacy status:		
Literate	44.02	35.5
Illiterate	79.98	64.5
Grade level:		
Primary	36.58	29.5
Junior	75.64	61
Secondary	11.16	9
Diploma	0.62	0.5
House hold Head:		
Male headed	105	87.5
Female headed	19	12.5

Sex of the respondents: Among the total number of respondents who were sampled on a random basis, 79.4 percent (98.46) of the households are male; whereas 21.6 percent (25.54) were female.

Migration Status: Out of total respondents, those who were non-migrants or those who were born in the study area account for 94.5 percent (117.18) and insignificant number of the households was reported to have migrated from elsewhere, i.e. only 5.5 percent (6.82).

Age of respondents: Majority of the respondents were in their young age. As the data showed that 43.3 percent (53.69) were in the range of 18-30 years, whereas a significant number (35.1 percent) also falls under the second category of age, i.e 31-40 years. The slim number, 10.5 percent (13.02) were found to be in the age of 41-60 and only 10.2 percent (13.77) were at the old age margin above 64.

Household size: The household size was categorized in three ranges, namely, 0-3; 4-6; above 6. Majority of the respondents (51.5 percent) were having a size of 4-6 whereas 37 percent had a size of above 6.Those whose size is three and below were very small in proportion which accounted for only 11.5 (14.26) percent of the respondents. Thus, the overwhelming majority, almost 88.5 percent of the households have a family size exceeding four.

Literacy status: Information on the literacy status of the respondents was also collected with the view that it could aid in understanding the capacity of the farming households to grasp policy messages being communicated. Among the total number of respondents35.5 percent (44.02) were literates of different levels whereas the other significant portion of the respondents (64.5 percent) were illiterate. This figure shows that there is a significant difference of literacy status in the study area which is higher than that of the national figure, i.e., 36 percent (MOE, 2010).

Grade level: Among the literates, 61 percent (75.64) completed their junior level schooling (7-8), 29.58 percent (36.58) had some kind of primary education, 9 percent (11.16) had secondary education (9-12), and some 0.5percent (2) were diploma graduates. Thus, the educational profile of the respondents shows that most of the literates have got access to at least primary education and above.

House holds head: With regard to the headship, 87.5 percent were male headed and only 12.5 percent were female headed households.

4.1.1.2. Economic characteristics of the households

Few variables were selected to describe economic characteristics of the households with the purpose that these variables would have effects on the outcome variable of the study. The economic variables selected for the study, however, were not exhaustive and analysis has been done with caution because the purpose of the study is limited to assessing the effectiveness of communication rather than economic performance of the households. The percentage distribution of data collected on these characteristics is shown below.

Table 2: Distribution of respondents by selected economic characteristics

Characteristics	Frequency (N=124)	Percent
Household labor (working age)		
1-3 members	70.08	58.4
4-6 member	39.96	33.3
>6 members	10.17	8.2
Main source of drinking water		
Piped into the HH	2.48	2
Piped for common use	64.73	52.2
Well water	6.2	5
River water	5.83	4.7
Spring water	42.28	34.1
Household wealth index		
Low	99.82	80.5
Medium	23.93	19.3
High	0.25	0.2
Land size owned by households		
Landless	0.12	1
<0.5 hectare	91.88	74.1
0.5-1 hectare	18.23	14.7
>1 hectare	11.41	9.2
Household main source of income		
Farming	75.02	60.5
Livestock	0.33	2.7
Mixed farming	63.36	51.1
Beekeeping	0.12	1
Others	7.69	6.2

The data collected on the distribution of the household labor (working age) has shown that 58.4 percent (39.96) households own 1-3 members whose age lies under the age of 15-60 and 33.3 percent (126) households own 4-6 members in the similar labor age range. About 8.2 percent of the households were found to own above 6. This shows that the number of productive age group is lower than unproductive age group in the households.

Regarding households' access to potable water source, the result shows that 52.2 percent (64.73) of the households have community pipe water used in common. Some 34.1 percent (42.28) use spring water as a major source of drinking whereas 5 percent (6.2) and 4.7 percent (5.83) use well water and river water, respectively. Only 2 percent (2.48 households) reported having access to piped water into their homes. Thus, the percentages of respondents who have access to potable water were 58.2% which is lower than the national average of 70 percent (CSA, 2010).

Though not complete and reliable, the household wealth index has been set based on asset ownership of the households. Ownership of electricity, radio, bicycle, sewing machine, cart (bullock) and houses with corrugated iron roof aggregated to give wealth index. This is an index developed by the researcher simply to assess the households' asset ownership with regard to commonly known items that are owned in rural areas. The index consisted of three categories. Those sample house hold whose cumulative ownership out of the enumerated 6 items falling below 2 are categorized as low; those falling between 3 and 4 categorized as medium; and above 5 are categorized as high. The sample responses, hence, reveals that, 80.5 percent of the households found to fall in low wealth index category; and only 19.3 percent in the medium category. The proportion of households in high wealth index category almost negligible (i.e, 0.2 percent).

In terms of land ownership, 74.1 percent (91.88) of the respondents owned less than half a hectare; whereas some 14.7 percent (18.23) own about half a hectare. Some 9.2 percent (11.41 households) own more than a hectare; and only 0.12 households (1 %) are found to be landless. Even though the average land holding in terms of size distribution was found to be small, the number of landless is insignificant. The main sources of households' income and occupation in

the study area are crop farming which accounts for 60.5 percent. The second major source of households' income is mixed farming which accounts for 51.1 percent of the respondents' occupation. Bee keeping is the third main sources of occupation accounting for 6.2 percent of the house hold responses. A few households engaged in livestock keeping and other unspecified activities.

4.1.1.3. Household food security status

Some standardized food security measures were selected to see to what extent there is food availability in the study area and this is presented in the table below. Since one of the major themes and focus of the rural communication has been ensuring food security at household level, the status of the households' food accessibility is taken as an indicator to assess the effectiveness of the communication intervention.

In their response to the question regarding the frequency of occurrence of food shortage in the household, 48.2 percent of the population were reported to have never come across such an incidence; whereas some 17.4 percent rarely faced the problem. About 16.4 percent showed that it happened to them sometimes; while 18 percent responded that they face the problem more frequently. In their response to the question how frequently the household members slept without food, 75.6 percent of the population responded 'never'; while 6.5 percent responded 'rarely'. About 10.8 percent of the households reported to have faced the problem sometimes; while 7.1 percent faced it always. Regarding the frequency of starvation of the household for the whole day, absence of the incidence was responded by 81.6 percent of the subjects; whereas the rest 5.7 percent, 7.7 percent and 5 percent responded rarely, sometimes and always, respectively.

Table 3.Food security status of households in the study area during 2013/14 cropping season

Food security status of households	Frequency (N=124)	Percent
Frequency of occurrence of food shortage:		
Not occurred	59.77	48.2
Rarely	21.58	17.4
Sometimes	20.34	16.4
Always	22.32	18
Frequency of sleeping without food:		
Not occurred	93.74	75.6
Rarely	8.06	6.5
Sometimes	13.39	10.8
Always	8.8	7.1
Frequency of starvation for the whole day:		
Not occurred	101.18	81.6
Rarely	7.07	5.7
Sometimes	9.55	7.7
Always	6.2	5

The above questions were aggregated to yield a food accessibility index. The affirmative responses for the three questions were summarized to give the four levels of food insecurity based on the formula provided with HFIAS version 3 (Coates et al, 2007). Hence 59.2 percent of the households were found in the category of high food accessibility while only 5.5 percent of them were found to be subject to high inaccessibility to food. Rare inaccessibility was responded by 28.4 percent and some 7 percent responded a moderate inaccessibility to food. From this data, it is evident that about 59 percent of the households enjoy food availability while the rest of the households experienced food inaccessibility at varying frequencies.

4.1.2 Source, contents and ranking of the rural communication

The opinion of the sample respondents on various questions regarding the source, content and methods of rural policy communication have been collected and presented in the subsequent tables below.

4.1.2.1. Sources and contents of rural information

Multiple responses were collected with regard to the source of rural messages. Over 88.6 percent of the data revealed that Development Agents (referred to as DAs) were the main sources of information while 80.1 percent of the response showed that Woreda leadership was also one of the vital sources in communicating policy messages. The role of the model farmers in sharing knowledge and experience to other households has also got a lion share.

In this regard, 77.4 percent of the response identified it as one of the major sources. The role of the donor agencies as a source of development messages was found to be the least one which only accounted for about 20.9 percent. This signifies that the major sources of rural development information were the extension agents, the model farmers and the Woreda leadership.

Table 4: Major sources of information for rural communication in the study area

Responses to question	Frequency (N=124)	Percent
Main Sources of information		
DA as main source of development information	109.86	88.6
Woreda leadership as main source of development information	99.32	80.1
Model farmers as main source of development information	95.98	77.4
Donor Agencies as main source of development information	25.92	20.9
No source of development information identified	12.4	10
Rural conferences used as source of extension messages during each harvesting season	88.92	70.1
Radio used as source of extension messages during each harvesting season	44.39	35.8
Newspapers used as source of extension messages during each harvesting season	40.05	32.3
Development agent used as source of extension messages during each harvesting season	104.28	84.1
Main focuses/contents of the communications		
On the use of selected seeds and fertilizers	114.45	92.3
on improved agronomic practices	104.28	84.1
on improved agricultural implements	93	75
on improved livestock breeds	95.48	77
on water harvest and irrigation	97.46	78.6
on market and credit access	89.16	71.9
on soil and water conservation	108.5	87.5
on issues other than the above	7.81	6.3

Three types of media including local radio, printed newspapers and interpersonal (face–to-face conferences) alternatives have been utilized in the study area. The respondents have given values to the importance of each media alternatives during every agricultural season. Thus, rural face to face conference has got the highest rate (70.1%); local radio (35.8%); and printed media (32.3%).

With regard to the content and thematic focuses of the communication process, 92.3 percent of the responses indicate that the use of improved seeds and fertilizers to the leading agenda of discussion. However, the issue of improved agronomic practices, soil and water conservation, irrigation and water harvesting, improved agricultural implements, and use of improved livestock breeds are found to be frequently discussed agenda which accounted for the response of 84.1 percent; 87.5 percent; 78.6 percent; 75 percent; and 77 percent, respectively. The contents mentioned above are those explicitly described in the document of the rural development policy. Thus, the sample responses indicate that, the major themes frequently communicated to them are based on the policy prescriptions.

4.1.2.2. Rank order of sources

Respondents' perception in ranking the relative importance of information sources to their household development activities is shown in Table 5 below.

Table5: Rankings of different sources of information as reported by sample respondents in the study area.

Source of information	Ranked sources of information				
	First	Second	Third	Fourth	No response
Face- to – face conferences to the household development activities	61.9	28.1	1.91	1.5	12.2
FTC training to the household development activities	20.9	34.1	3.5	2.1	26.9
Radio to the household development activities	4.2	8.1	26.7	14.9	48.7
Newspapers to the household development activities	4.9	5.1	19.1	20.8	55.2

Among the selected media and channels of messages, 61.9 percent of the responses indicate that face-to-face communication is the most helpful for their development endeavor; and it is given the first rank order. The farmers' training centre (FTC) contribution is rated of the second rank (34.1 %); radio as third (26.7 %); and newspapers reported to be the fourth (20.8 %) in the rank order. This shows that the contribution of face-to-face conference at Kebele level has an outstanding contribution for the household's level development being followed FTCs level training, radio, and newspaper reading whose role has also significant place in the communication process. However, the physical status of the FTCs found inadequate in the study area. That is, the training institutions are not equipped as per the prescriptions of the Extension Manual of the government. According to the qualitative data collected from both observation as well as KII, they are poorly organized and equipped. That is, they are found to be inadequately to facilitated to provide the required training as per the training manual developed for grass roots level practical skill and knowledge development.

On the basis of the study findings, the DAs are taken as the major communicators of because of their overriding role of face-to-face communication outside the FTCs. DAs are actively engaged in rural conferences in collaboration with the Woreda leadership; and in each session they often provide skill trainings as part of the seasonal plans. However, most of their activities are not done at the premises of the FTCs where the decisive task of technology transfer, demonstration, as well as routine technical support could be planned, organized and implemented at institutional level.

4.1.2.3 Access to and utilization status of print and electronic media

The respondents' access to radio and print media as well as the status of utilization of information from these media is presented in Table 6 below.

Table6: Access to and utilization of printed and electronic media in the study area

Access to and utilization of media	Frequency (N=124)	Percent
Participation in news papers discussion panels:		
Regularly	15.38	12.4
Sometimes	32.36	26.1
Rarely	7.94	6.4
Never	68.32	55.1
Relevance of local radio messages to the development activities of the household:		
Very relevant	31.5	25.4
Satisfactory	28.27	22.8
Not satisfactory	8.06	6.5
Irrelevant	3.35	2.7
Do not know	52.82	42.6
Consistency of the local radio messages to the seasonal agricultural plans of the household:		
Yes	61.38	49.5
No	7.07	5.7
Do not know	55.55	44.8

There is a fortnightly discussion panel on the state owned newspapers printed and disseminated by the regional government twice a month. The response of the households with regard to their participation in the panel has been found to be insignificant. Over 55.1 percent of the responses show that, they never participate in the panel discussion forum. Out of the remaining 45.1 percent who participate in varying frequencies, only 12.4 percent are found to have been participating on regular basis. About 26.1 percent participate sometimes, while 6.4 percent are found to participate rarely. It was indicated in the responses from the qualitative data that the newspaper dispatched among few households who were identified as vanguards and the discussion panels were also arranged to these group whose local role is providing support to the majority of farmers who need assistance and guidance of successful farmers. Hence, the readership of the newspaper was limited to these vanguards. However, it can be concluded from the data that among those who have got the access to acquire the newspaper and participate in the panels, the rate and frequency of participation still awful. Beside this, the newspaper is printed in Amharic language which in turn exacerbated the problem.

Regarding the relevance of local radio messages to their development plans, 42.6 percent of the responded that, they do not know about it. Some 25.4 percent of the population responded that the messages are very relevant to their planned development activities; while 22.8 percent of the population responded as satisfactory. With regard to the consistency of the local radio messages to their seasonal activities, 49.5 percent responded that the messages were consistently disseminated in line with their seasonal agricultural activities; and relatively equal number, (44.8 percent) of the samples responded that, they do not know whether it has been consistent or not.

Generally, the utilization of the printed form of media is at its infancy stage; where as access to and utilization of radio media is better than that of the print media. However, a significant portion of the sample responses still show that, there is a problem of inaccessibility mainly because of lack of radio apparatus at household level.

4.1.2.4 Indicators of effectiveness of face-to-face communication

Respondents' perception on some 15 questions which were chosen to indicate the effectiveness of person – mediated communication such as face-to-face conferences, training, FTC, level demonstration and skill trainings were collected by using 'yes' or 'no' responses. The 15 indicators were further aggregated as Effectiveness Index.

With regard to the clarity and simplicity of messages during face to- face communication, 75.5 percent of the respondents answered positively whereas 12.4 percent answered that they did not know it. About 75.1 percent of the responses were positive in recognizing that the communicators ensure the level of understanding of participants during the face-to-face encounter of communication while 13.4 percent responded 'no\' and 10.5 percent responded that they knew nothing about it. The majority (86.9 %) of the responses confirmed that communicators had capacity to convey the intended message properly during the communication process. About 54.7 percent of the responses indicated that the communicators had arranged appropriate time and date for the communication meetings at the community level while 39.6 percent of the response indicates the absence of such an arrangement. More than 70.7 percent of the households responded that the communicators create friendly communicative environment and 80.1 percent of the respondents also suggested that the communicators are accustomed to provide in-depth responses on the issues raised by the participants(as shown in Table 7 below).

Table 7. Indicators of effectiveness of rural communication processes in the study area

Effectiveness Index	Yes (%)	No (%)	Do not know (%)
Clarity and simplicity of the messages of the face-to-face communication	75.5	9.4	12.4
Capacity of the communicators in conveying the messages properly	86.9	10.7	7.1
The communicator ensures the level of understanding of the participants	75.1	13.4	10.5
The communicator creates conducive and participatory communication climate for the participants	80.1	10	11
Appropriateness of date and time on which the communication meeting is arranged	54.7	39.6	5.7
Friendly relationship with the communicator	70.7	24.1	10.2
Depth of response from the communicator to the issues raised by the participant	80.1	12.2	8.4
The recommendations given by the communicator consider the resource and intellectual capacity of the participant	54.7	36.3	9
Perceived relevance of the content from the communicator	86.1	8.5	9.5
The communicator considers the participant's capacity and level of knowledge during communication	75.1	15.2	7.1
Clarity of the language used by communicators	90.3	8.1	9.7
Compatibility of the messages with the culture and customs of the community	84.8	6.7	10.5
Communicators advise the participants to convey the messages to others	85.6	9.7	10.7
Revision of themes of the past sessions by the communicators during the start of new topics	80.6	10.3	8.3
Communicators allow the participants to freely debate on issues	79.6	6.4	8.4

The responses (75.1 %) have also shown that the communicators were considerate of the level of knowledge and capacities of the participants when they communicate with them. Some 84.8 percent of the responses have shown that communicators were accustomed to use clear local language and terminologies. The majority of the responses (84.8 %) show that, the themes of the

messages were also found to be in harmony with the local culture and customs. Some 85.6 percent of the respondents also proved that the communicators used to advise them to convey the development messages to their counterparts in their surroundings so that the knowledge and information communicated could be swiftly disseminated among the rural farming communities. Over 79.6 percent of the responses have shown that there was a free flow of information and debate on the issues during the communication process.

The responses given has to all the 15 questions have shown that the communication environment in the face-to-face interaction are enabling one for free flow of ideas, friendly relationships, rapport building and consideration of local contextual realities have been addressed among others.

4.1.2.5 Level of participation of households in the communicative process

In order to assess the extent of households' participation in the process of rural face-to-face communication, five indicators were selected as shown in Table 8 below.

With regard to perceived level of participation of the households during community meetings, the respondents were made to respond to five major questions that indicate varying levels of popular participation ranging from mere absence to real manifestation of the practice of participation.

Table 8. Perceived level of participation in the communication process in the study area

Sample perceived level of participation in the communication process	Frequency (N=124)	Percent
Perceived level of participation of the household during community meetings		
Passive listener while the communicator delivers the message	5.08	4.1
The communicator allows me to raise some questions	19.34	15.6
They make short presentation and leave most of the time for us to discuss and finally summarize the topic	74.28	59.9
Few opinion leaders dominate the session while most of us keep listening	10.42	8.4
Do not know	14.88	12
Perceived level of acceptance of the views of the household during community sessions		
We raise few questions that are answered by the communicator	3.1	2.5
We simply complement their presentations but don't argue on it	12.03	9.7
We raise issues and make comments, but there is hardly any mechanism to follow up their implementations	14.51	11.7
We make hot discussions and argue freely to the extent that we can make alterations on the contents	83.58	67.4
Do not know	10.79	8.7
Ever provided suggestions/comments for change regarding development plans to concerned bodies		
Yes	77.25	62.7
No	46.25	37.3
Implementation of suggested changes you ever made		
Yes	68.08	54.9
No	55.92	45.1
How planning is carried out		
I myself plan based on the knowledge gained	61.13	49.3
I plan with close assistance of the extension agent and others	42.41	34.2
I am simply given a plan prepared by the extension agents and others	11.66	9.4
I don't have plans, and have never planned	8.8	7.1

Among the alternatives which range from passive listeners to active actors in the discussion sessions, most of the responses (59.9 %) indicated that the communicators make only short presentations and leave most of the time to participants' discussion and debate.

The percentage distribution of responses for questions that indicate the perceived level of acceptance of the views of the households during communication sessions has been found that the participants were allowed to make hot discussions and argue freely to the extent that they could make alterations on the contents. This was confirmed by 67.4 percent of the responses. The presence of possibility for providing suggestions and comments that could result in change of development plans was favored by 62.7 percent of respondents. With regard to the local practice of development planning, only 49.3 percent of the respondents indicated that they plan by themselves based on the knowledge gained in the course of the communication process. While 39.6 percent of the households were found to have been planning based on the close assistance of extension workers and others, some 9.4 percent were found to have simply been handed with readymade prescriptions of plans by outsiders on their behalf and 7.1 percent were reported to have no plans and have never planned.

4.1.2.6 Institutional factors

In this section, data were collected from the respondents on the capacity of the Farmers' Training Center (FTC) with regard to internal organization and facility, provision of skill training and demonstration, support provision from the extension agent, and frequency of farm visit done by the extension agent as well as the frequency of visit made by the farmer to the FTC in need of technical support.

About 54.5 percent of the respondents indicated that the FTC was partially equipped while 20 percent of the responses showed it is fully equipped. 13.7 percent are reported to have no information on the issue and some 6 percent answered that the FTC had no capacity to offer training. The perceptions of the respondents also varied on the status of the FTC on providing skill training and demonstration. Some 45.4 percent of the respondents rated the status as 'good' whereas 27.5 percent rated it as 'very good'. The rest of the responses scattered among the alternative choices such as 'poor' (10 %); 'very poor' (3.7 %); 'none' (9.9%), and 'I don't know '(3.9%).

The frequency of visit made by the extension agent to the farms of the households was found to be poor. 28.9 percent of the respondents answered to have got plot based support from the agent at least once in a week. About 15.9 percent of the population responded once in a fortnight, and 9.5 percent answered once in a month; while some 13 percent of the responses indicated that the supervision support done once in a quarter of a year. However, significant number, 32.1 percent of the population responded that, they were never visited by the agent. This indicates that the extension agents rarely visited the farm plots of the households.

Table 9.Institutional factors related to communication as reported by respondents

Responses to question	Percent
The internal organization and facility of the FTC	
Fully equipped	20
Partially equipped	54.5
No capacity to offer training	6
Do not know	13.7
No response/ not exist	5.8
The respondents perception of the FTC skill training provision and demonstration	
Very good	27.5
Good	45.4
Poor	10
Very poor	3.7
None	9.9
I don't know	3.9
Perception of respondent on the technical support given by the extension agent	
Very good	26.6
Good	42.3
Poor	18.8
Very poor	4.6
Never	7.7
The frequency of visit by the extension agent to the household	
At least once in a week	28.9
Once in a fortnight	15.9
Once in a month	9.5
Once in quarter of a year	13.7
Never being visited	32.1
The frequency of visit made by the respondent to the extension agent in seeking technical support	
At least once in a week	14.4
Once in a fortnight	12.2
Once in a month	11.5
Once in quarter of a year	13.2
Never went to extension agent	48.7

On the other hand, the frequency of visit made by the households to the extension agent's place seeking for technical support was responded by the households. Over 48.7 percent of were found to have never visited the agent didn't seek any support. Only 14.4 percent of the population found to pay a visit at least once in a week; and 12.2 percent once in a fortnight. Some 11.5

percent visited once in a month; and 13.2 percent on quarterly bases. The frequency of visit by the farmers to the place of the DAs seeking support found to be poor in general. The qualitative data collected from both observation and key informants further supplemented the data from survey.

The FTCs suffered a number of inadequacies in terms of physical inputs and found to be below the standard described in the extension manual. Some of the major problems observed that, the buildings poorly constructed; equipped with inadequate or no internal facilities, such as furniture; had no adequate size of plot of land to carryout demonstrations; and there no adequate agricultural inputs provided for training activities. The professional support of the DAs, as shown in Table 4, found to be inadequate. The qualitative data further made it clear that the DAs not in a position to carry out their very mission of extension communication properly. In their response to the structured questions forwarded, the extension agents revealed that they are not only deployed to execute the task of extension. Most of their time is devoted to perform non-extension tasks. Some of the non-extension activities carried out by the extension agents included:

- • Measuring land holding of farmers;
- Coordinating public mobilization against harmful traditional practices;
- Assisting campaigns carried out by the heath sector, such as immunization;
- Collection of loans (input loans, microfinance arrears) and collection of tax;
- Facilitating the prosecution of criminals in collaboration with justice bodies;
- Collecting fees of Development Associations;
- Collecting fees of sports;
- Collecting fees for uniforms of local militia men;
- Collecting fees of Red Cross Society;
- Protecting publicly owned lands and forests against free raiders and prosecuting those who found in so doing; resolving conflicts that arise among villagers due to resource use (border conflicts);
- Coordinating construction activities of local institutions carried out at kebele level (school classroom expansion, construction and renovation of FTC heath posts and;
- Mobilizing parents to enroll their children during school period.

It is also evident that the number of households each extension agent should reach and communicate far more than the one publicly known, (i.e. one hundred household each) (BoA, 2006). In the four Kebeles of the study, the average number of households that each extension agent is supposed to support was found to be 250 and above. Thus, they are also facing physical inaccessibility of reaching out. It is also evident that the most important development message related to off-farm activities is not part of their usual business since the DAs are suffering from burden of additional non-extension tasks.

The interview data have also come up with such evidences that further clarified to what an extent the FTCs are given attention in comparison to other social service institutions. Their response in this regard has shown that there is a little attention given to the functions of the FTC. Schools and health institutions are repeated to have been given a heightened attention than the FTCs. Hence, the acceptance as well as credibility of the DAs has also been declining. Because of their involvement in a number of non-extension tasks, the enthusiasm and respect from the farmers found to be deteriorating. Moreover, the informants reiterated that teachers and principals have never been seen apart from the school system and the teaching learning process. However, the entire performance and deployment of the DAs has been weakly linked to the institutional settings and performance of the FTCs, which deserve to be perceived as the Farmers' Schools of Technology.

Beside the above problems, the responses of the population also indicate that, the DAs given little attention in comparison to other professionals in rural Kebeles (specially teachers).They work under inadequately structured pay and career system; lack housing and transport facilities that could enhance the rate of their outreach service and training as well as transfer opportunities inadequate and unfairly addressed. Above all, the data has shown that they are under the pressure of long standing physical as well as structural inconveniences that severely hampered their effectiveness to achieve the communication mission in the attendance area.

4.2 Discussion

Agricultural development as part of rural development possesses modern knowledge and information; so that the agricultural production of the farmers increases; and hence, the food security status of the farm households becomes secured. In doing so, it is imperative for the farmers to have and accept the necessary technologies, innovations and knowledge for the rural development. As an institutional factor, Farmers Training Center (FTC) was found to be an important entity for the effectiveness of communication intervention. This shows that farmers' technology adoption, information acquisition as well as skill training has been significantly dependent on the physical and institutional capacity of the FTC. Whenever the training centers are equipped and organized to the level that they can provide adequately planned training and demonstrations, the level of agricultural communication is enhanced and becomes effective and vice versa.

The Ethiopian government has given emphasis to the Farmers Training Center in particular and the entire organization of the Agricultural Extension System in general. The Agricultural Extension Manual of the Regional Bureau of Agriculture spelt out that the FTCs are the prime venue for Agricultural Technology Transfer and rural Transformation. It is the center where the extension personnel with multidisciplinary background will be placed and provide theoretical as well as practical skill training for the farmers. The FTCs are envisaged to change the rudimentary and traditional skills and knowhow of the farmers through the planned use of demonstrations. It is noted in the document that the FTC is a training ground where the extension agents would teach and train the farmers with diverse farming techniques and improved practices, both on cropping, livestock and natural resource management. These centers would serve as permanent and sole providers of innovative experiences and knowledge to the farmers.

In defining what is meant by optimum capacity to provide adequate rural training and overall technical support to the farmers, the document describes the minimum physical facilities to be fulfilled, the disciplinary background of the extension workers, and most importantly, the way by which the farmers are organized and prepared to acquire and implement the training and use the resources. The FTC, therefore, has been seen as the store of rural extension knowledge and skills that every rural development initiative should be clustered around and closely tied to its services.

However, in the study area, these centers were found physically dilapidated, inadequately equipped, and not in a position to carry out their missions described above. As shown in the results section, the qualitative data from each of the four Kebeles has also indicated that the training centers were in appalling physical conditions and thus were not able to provide proper training. The result is agreed with Kassa and Abebaw (2004).

The study also revealed that the Extension Agent's role has been poorly conceived. If the FTCs were to render an adequate service, clarity of the tasks and roles of the DAs would be strongly required. The DAs, as indicated by the qualitative data, were in charge of two sets of roles, namely: extension as well as non-extension tasks. Besides those problems they face in terms of poor provision of physical facilities, they were found highly overburdened with those tasks that were far from the overriding objective of the so-called extension communication. There were no clearly delimited borders between extension and administration. Their ordinary routine of any single day ranges from pure extension communication to some form of coercive administrative decisions that involve prosecution of 'criminals' and fee collection. The DAs were involved in every matter and found themselves 'a jack of all trades and a master of none.' Similarly, the result is in agreement with Rotberg (2005).

There is no evidence that supports the involvement of extension workers in regulatory and administrative duties. Rather, there are evidences that emphasize the importance of putting clear delimitation between extension and non extension task if the task of technology adoption and rural communication could be fruitful. Whenever the extension agents are involved in such regulatory and administrative tasks, farmers' confidence on the communicative interaction and the communicator declines and the positive relationship to be maintained between them will be deteriorated. Above all, acceptance and credibility of the extension agent will be questioned. Extension workers should not be involved in the collection of taxes or loan repayments or with prosecuting people. The extension worker's job is to teach people about better farming and better living, and such regulatory, unpopular tasks will reduce his effectiveness as a teacher. A Similar study conducted in South Western Ethiopia indicated that the extension agents were over burdened with heavy workloads which reduced their efficiency in carrying out their extension

communication services and thus it was recommended that the major tasks of the extension workers should entirely be shifted towards facilitating conducive environment for farmers' technology adoption through raising genuine participation and maintaining a strong relationship between the communicator and the participants.

The study has also revealed that access to and frequency of listening local radio broadcast has a strong effect on communication effectiveness. The radio program, during the last ten years has been expanding both in terms of physical infrastructure as well as content diversity. The trend shows that there is a strong commitment and effort on the part of the regional government towards shifting mass media to local media with the view of changing a one-way form of radio communication towards participatory, horizontal or two -way approach. The idea is that when the local contents are disseminated by using local languages, there is a possibility for rural people to understand the gist easily, contribute to the content development, and provide frequent feedback on the viability of the contents. Thus, the localization of radio media in the region has been grounded on both political as well as development rationales. The political rationale is that the local people will take part in the local matters such as good governance and enjoy their constitutional right and freedom of expression. The other rationale is that local development plans would be better communicated among the farming communities and hence achievement of the development goals could be facilitated.

Jimma Zone is one of those administrative divisions in the region having local radio media which is run at the zonal centre. The medium of the radio transmission is Amharic and Oromiffa. The study area, Nonno Benja Woreda is accessible to this radio broadcast and the quantitative data result has shown that there is a significant importance of the radio program in aiding the households to implement development activities. However, access to radio apparatus and frequency of listening varies to greater extent.

Local or community radio has a lot of advantages and strengths over the centralized or so-called mass-media. Mass media, as the name implies, is a vertical, one way tool which is used to carry out mass communication. It is criticized basically for its one-way and vertical approach; failure to consider local realities, use of centralized language and content. It hardly involves and informs

the local people on the local specific issues of development and does not provide room for participation. Thus, local radio transmission pays a lot of dividend to the local people's development. It can teach and inform through entertaining them. It has also a capacity to reach the peripheries and capture captive audiences. Beside this, it does not require literacy skills. If carefully prepared, organized and transmitted, it draws the attention of rural households, women and youth to the greater degree.

Studies have also shown consistent results with this study. The African Farm Radio Research Initiative (AFRRI) and Farm Radio International carried out a broad research on the effectiveness of rural radio communications in seven countries namely, Mali, Mozambique, Malawi, Tanzania, Ghana, India and Philippines. Rural or Farm Radio programs were designed and implemented in these countries as early as in 1960s and after independence. The study has shown that the extent to which the local Radio or Farm Radio programs were designed and disseminated had a strong impact in the technology and knowledge transfer. Thus, the radio programs were found to be effective and helpful in communicating agricultural messages. The programs were found to raise the interest of the farming communities as they were disseminating farming issues in a drama format. It attracted high listenership. In Mali, for example, the local or farm radio program raised interest among farmers to better organize themselves for cotton growing. Thus, rural radio was found to be superior means of extension communication to other options. This indicates that, if properly planned and managed, local radio can be an invaluable tool in raising the effectiveness of rural communication.

However, there are studies that indicated the insignificant contribution of radio program to the technology transfer. A study conducted in Engu state of Nigeria indicated that the contribution of the rural Radio program to the transfer of agricultural technologies and improved practices was low. This, according to the study, was mainly because of the poor nature of content development and management, its improper time schedule that hardly considered the farmers' own schedule.

Therefore, it can be concluded that, if properly planned and managed, local radio can be a powerful tool in aiding the rural communication and hence has an impact on the effectiveness of

rural communication. The findings of this study revealed that the more the rural farmers are accessible and frequently listen to the rural radio program, the more effective is the rural communication in disseminating development messages. Thus, there is a significant relationship with the radio listening and effectiveness of communication.

CHAPTER FIVE

CONCLUSIONS AND POLICY IMPLICATIONS

5.1 Conclusions

The main objective of this study is to assess the effectiveness of rural communication among farming communities in Nonno Benja Woreda of Jimma Zone in relation to the agriculture sector. Hence, effective rural communication and access to rural communication are still valid to realize agricultural transformation in Ethiopia. This study has revealed that face-to-face conferences, farmers' training center, radio and news paper, were the main communication tools used by the government to disseminate agricultural messages. Institutional arrangement and capacity to intervene in rural communication with reference to agricultural extension system has been found inadequate. Extension agents with multidisciplinary background were deployed in adequate number; but, the way they function at FTC and farm level is inconsistent with the extension manual. Based on the finding of the study, extension agents are found to be over burdened with non-extension activities. Such non-extension services rendered to farmers imposed physical and time pressure on the extension agents; and they eroded acceptance and credibility of the target communities. Moreover, the financial status and human capacity of the FTCs in all of the study areas are inadequate to link extension activities with research endeavors.

The study results revealed that local language has been used as a medium in every channel and tool of communication except that of the print media (fortnightly published news paper). The main and regularly attempts envisaged is to bring about rapid change in agricultural production, natural resource conservation, water harvesting, and livestock breeding. In short, the contents were found to be consistent with the prescription of the major policy manual. There is no significant barrier in the process of communication interaction between the households and the communicators. Language and content were constraints to use of the news papers being published in a language other than Oromiffa.

Respondents considered the methods employed to transfer message as appropriate; but, they claimed inadequacies of capacities. Face-to-face mode of message delivery has been the most

commonly used method in which the Woreda leadership and extension agents, as well as model farmers' roles have been very vital. The print media is used by many users because of unknown language media. The local radio media was found to be promising because of language and its outreach to those illiterates; but, problem of access to radio apparatus and lack feedback system between communicator and target audience were the major hindrances to get the best out of it.

Close 70 percent of the households were given policy training at Kebele level, and being supported on continued basis by the consecutive face to face conferences as well as radio messages, the intervention has yielded significant outcomes to the farming families and their livelihood. However, outcome assessment of the different communication media is beyond the scope of this study

The study has also indicated that the process of message delivery has been participatory. Contents of the communication are mainly chosen and presented by the communicators; while the discussion process is participatory and democratic. Though the farmers reported of not having mechanisms to generate the contents, they enjoy ample rights of raising issues, debating, and influencing the implementation strategies.

The survey findings have also shown that FTCs are poorly equipped and organized which, in turn, has an effect on the effectiveness of the communication intervention. The study has proved that the better the FTCs are equipped and organized to provide training, the more effective will be the rural communication and technology adoption. Even though access and frequency of listening to radio was inadequate, there was substantial evidence that radio had a significant impact on the effectiveness of communication.

5.2 Policy implications

With regard to recommendation, the following policy interventions need to be made by local government if the rural communications are to improve in transferring messages for development efforts.

5.2.1 Women empowerment

The findings of the study show that higher percent of men (79.4%) involved in rural communication than women (21.6%). Thus, empowerment of women should be encouraged to involve in rural communication because they should no longer rely on their husbands to receive message from extension agents and other concerned development actors

5.2.2 Improving the status and function of FTCs

Comprehensive measures in improving the status and functioning of FTCs should be undertaken. The mission and roles of the FTCs should be revisited to alter the existing perceptions and practices prevalent among concerned bodies at local levels. FTCs should be considered as schools of the Farmers to demonstrate and disseminate improved technologies, instead of considering them as camping stations for visitors and meeting venue for local people.

5.2.3. Roles and task definition for DAs

The roles and responsibilities of the local extension agents should be specific. There should be clear delimitation between what extension communication is and what it is not. The DAs should be made free from any task involving administrative issues. The reporting and supervisory relationship within the extension system should be so clear and explicit that the agents would never receive extra and non-extension assignments from every other who has a stake in the Kebele administrations. They should be assisted with facilities, including housing and local transport amenities. Some new and innovative approaches to improving the accessibility, capacity, and use of the local radio should be employed. Capacity building and expansion of the existing institutional framework of the local radio transmission should be undertaken. Expanding the outreach of the local radio can solve the problems of inaccessibility; and hence, measures should be taken to widen the rate of coverage. New guidelines should also be developed in order to institutionalize the system that enables local stakeholders work closely in identifying the contents and managing the entire participatory process.

5.2.4 Solving language barrier in rural communication

The medium of the fortnightly news papers should be in the local language. Due to high cost and institutional capacity constraints, decentralized publication could not be feasible in the short run. Thus, there should be a commitment to build certain institutional capacity at local/zonal/ level to

translate centrally printed materials into the local language to solve the problem of language barrier with the idea to incorporate contents reflecting local realities.

5.2.5. Periodical evaluation and monitoring of rural communication

Rural communication practices should be appraised and evaluated periodically. Evaluating and monitoring the effectiveness of the communication plan implementation at grassroots level on quarterly basis help the local stakeholders involve in the process of communication. This is the method supported by most literature regarding participatory development communication.

In sum, this study used cross-sectional data from narrow area coverage using a small random sample of farmers. Thus, more intensive research should be undertaken, especially in the area of rural communication to further refine this study. However, the finding of this study could also be serving as a spring board for further research in general and policy decisions in particular.

REFERENCES

African Farm Radio Research Initiative, AFRRI, (2008). Communicating with Radio: Findings from Selected Rural Radio Effectiveness Evaluations. Ottawa, Canada.

Agricultural Research and Extension Network, AGREN, (2003). Rural Radio in Agricultural Extension: The Example of Vernacular Radio programmes on Soil and Water Conservation in Ghana. Network Paper , no. 127. Accra, Ghana.

Alhassan, A. (2004). Development Communication Policy and Economic Fundamentalism in Ghana. Academic Dissertation. University of Tampere, Finland.

Anyanwu, A. C., Ekwueme, J. N. and Agwu, A. E. (2008). *Adoption of Improved Agricultural* Technologies disseminated via Radio Farmer Program by Farmers in Nigeria :

African Journal of Biotechnology, Vol.7 (9),pp.127_1286. University of Nigeria, Enugu: Nigeria.

Bureau of Agriculture,BoA,(2009). Annual Review Report Submitted to Oromia Regional State Council. Addis Ababa, Ethiopia.

(2006). The South Nations, Nationalities and Peoples Regional State Agriculture Sector Five Year Plan of Action (2006-2010). Hawassa, Ethiopia.

(2007).Guideline for Participatory Agricultural Extension.Hawassa, Ethiopia.

Bureau of Finance and Economic Development of the Oromia Regional State, BoFED, (2012). Project Document on Food Security and Livelihood Development Program, Addis Ababa, Ethiopia.

Central Statistical Agency (2010). The 2007 Population and Housing Census of Ethiopia: Results for the Oromia Regional State. Berhanena Selam Printing Press: Addis Ababa, Ethiopia.

Chambers, R. (1983). Rural Development: Putting the last first. New York, USA.

Coldevin, G. (2003). Participatory Communication: A key to Rural Learning Systems. FAO: Rome. Concorida University, Canada

Davies, J. (2004). One World Network: Communication for Development. Development Report. Italy.

Dessalenge, T. (1982).Extension Training Manual.Jimma Agricultural Development Unit, Jimma, Ethiopia.

Dissanayake, W. (1985).From a piecemeal approach to an integrated Strategy of Development. Media Development, No. 4th ed. New Dehi, India.

Eadie, W. F. (2009). 21st Century Communication: A Reference Handbook. San Diego State University.Sage Publications.

Escobar, A. (1995). Encountering Development: The Making and Unmaking of the Third World. Princeton, NJ: Princeton University Press.

Eshetu, C. (1974). Ethiopia: Options for Rural Development. Zed Books Limited, London & New Jersey.

Food and Agricultural Organization, FAO (2005). Communication for Development Round table report: Focus on Sustainable Development. Ottawa, Canada.

(2006).Effective Rural Communication for Development. United Nations: Rome.Fraser, C. and Villet J. (2005).Communication for Development: Round Table Report: Rome, Italy.

Freire, P. (1982). Pedagogy of the Oppressed.Harmondsworth, Middessex, England: Penguine Books.

Gomez, R. (1997). The Emergence of a new paradigm in Development Communication. Seminar paper. New Delhi, India.

Goulet, D. (1971). The Cruel Choice: A New Concept in the Theory of Development. Centre for the Study of Development and Social Change. Cambridge, Massachusets, USA.

GTZ (2003). Framework on effective rural communication for development, Nairobi, Kenya.

GTZ (2006). Framework on effective rural communication for development, Nairobi, Kenya.

Heemskerk, W. Haugerud, A. and Edelman, M. (2003). The Anthropology of Development and Globalization: From Classical Political Economy to Contemporary Neoliberalism.

Hyden, G. (1983). No Short cuts to Progress: African Development Management in Perspective. London.

Inagaki, N. (2007). Communicating the Impact of Communication for Development: The World Bank, Washington DC.

Kabuya, F. I. (2011).Development Ideas in Post-independence: Sub-Saharan Africa. *Journal of Development and Agricultural Economics* Vol.3 (1).

Kassa, B. and Deginet, A. (2004). Challenges Facing Agricultural Extension Agents: A Case Study from South Western Ethiopia. Blackwell: UK.

Maguire, P. (1984). Doing Participatory Research: A Feminist Approach, Amhrest: University of Massachusetts.

Mcphail, T. L. (2009). Development Communication: Reframing the Role of the Media. Blackwell Publishers, UK.

Mefalopulos, P. (2008). Development Communication Sourcebook: Broadening the Boundary of Communication. The World Bank: Washington DC, USA.

Mefalopulos, P. and Tufte, T. (2009). Participatory Communication: A practical Guide, World Bank, Washington DC.

Melkote, R. Srinivas and Steeves, H. (2001). Communication for Development in the third world. USA, Washington DC.

Ministry of Education (2010).Annual Statistical Abstract.MoE: Addis Ababa, Ethiopia.

MoI (2003).Building National consensus on Peace, Democracy and Development. Ministry of Information of the Federal Democratic Republic of Ethiopia, Berhanena Selam Printing Press. Addis Ababa, Ethiopia.

_____ (2002). Rural Development Policies and Strategies of the Federal Democratic Republic of Ethiopia. Addis Ababa; Ethiopia.

Mody, B. (ed.) (2003). International and Development communication: A 21st Century Perspective, SAGE, publications, London.

Moetsabi, M. and Anyaegbunam, (2004). Handbook of Participatory Rural Communication Appraisal: Starting with People. Food and Agricultural Organization of the United Nations, Rome, Italy.

Murphy, P. (2007). Media and Democracy in the Age of Globalization. State University of New York. USA.

OSSREA (2011). Assessment of Poverty Reduction Strategies in Sub-Saharan Africa: The Case of Ethiopia. Synthesis Report. Organization for Social Science Research in Eastern and Southern Africa (OSSREA). Eclipse: Addis Ababa, Ethiopia.

Quebral, N. (1975). Development Communication: Where does it stand today? Media Asia, Vol, 2. (4): pp. 198.

Ramirez, R. (1997). Participatory Learning and Communication Approaches for Managing Pluralism. FAO, Rome: Report prepared for Rocke feller Foundation. Research &

Extension Network paper No. 127.

Ray, N. S. (1995).Communication in Rural Development: A Public Policy Perspective. Indian Institute of Advanced Studies, New Delhi.

Rotberg, R. (2005). Battling Terrorism in the Horn of Africa. The World Peace Foundation, Virginia: USA.

Santucci, F. M. (2005). Strategic Communication for Rural Development. World Bank, Washington DC:USA.

Sen, A. (1999). Development as Freedom. USA, New York.

Singh, K. (2009). Rural Development: principles, policies and Management, third edition.

Technologies disseminated via Radio farmer program by farmers in Enugu state Nipona*African Journal of Biotechnology* Vol.7, pp 1277-1286.

Oromia Media Agency (SMA) (2010). Annual report submitted to the Oromia Regional State \ Government. Addis Ababa, Ethiopia.

Oromia Regional State Government (2011). Annual plan implementation report presented to the Regional State Council. Addis Ababa, Ethiopia.

Todaro, M.P. and Smith, S.C. (2009).Economic Development.Tenth edition. Essex: England, UK.

Turkdogan, S. (2006). Globalization, Development and the Mass media. Sage Publications: UK, London.

Waisbord, S. (2003). Family Tree of Theories, Models and Approaches in Development Communication: Washington, DC, USA.

Wilkin, P. (2001). The Political Economy of Global Communication. Pluto Press, Padstow: England.

Willis, K. (2005). Theories and Practices of Development. Rutledge, New York: USA.

Willner, S. (2006). Strategic communication for sustainable development: conceptual overview. Working paper no. 120, Washington DC.

White, A. R. (2008). African Communication Research, Vol.1. No.1. Wolaita Zone Finance and Economic Development Department (2012). AdministrativeMap of Jimma Zone.Jimma, Ethiopia.

World Bank (2006). Hazards of Nature: Risks to Development, Washington DC.

World Congress on Communication for Development, WCCD (2006). Communication for

Sustainable Development: Report of the World Congress on Communication for Development.
World Food Program, WFP (2008). Communication Strategy: Informal Consultation. Rome:Ita

ANNEX

Annex 1: Formal Survey Questionnaire on Rural Communication

The main objective of this study is to assess the effectiveness of rural communication among farming communities in NonnoBenjaWereda of Jimma Zone in relation to the agriculture sector.

Name of enumerator _____

Date at which questionnaire filled_____

Woreda_____ Zone_____

Questionnaire number_____

Section I. Socio-demographic characteristics

1. Name of household head_____
2. Sex of household head: 1=Male, 2=Female
3. Headship of the household: 1=Male, 2=Female
4. Marital status: 1=Single, 2=Married, 3= Divorced, 4=Widowed
5. Religion: 1=Orthodox, 2= Muslim, 3=Protestant, 4=Other (Specify) _____
6. Migration Status 1= Migrant, 2=Non-migrant
7. Age of household head (in years) _____
8. Educational status of the household head

Illiterate		Secondary (7-12)	
Read and write		Higher education (above 12)	
Elementary (1-6)		Others (Specify)	

9. Household size

Description	**Male**	**female**
1.Members between 15 and 60 years old		
2.Members less 15 years old		
3.Members more than 60 years old		
4.Dependents in the household		
5.Full-time farm workers in the household		
6.Part-time worker in the household		
Total household size		

10. Migration Status 1- Migrant 2- Non-migrant

11. Primary occupation

Farming	Artisan
Trading/business	Other (specify)
Civil service/retired	

12. Type of farming activities: 1. Crop farmer 2. Livestock farmer 3. Mixed farming

13. Farming experience (years): ----------

Section II. Economic characteristics of the households

14. Do you have your own land for cropping and pasture? 1=Yes, 2=No

15. If YES, how much is your total farm land size (using local measurement unit)? _____

16. Slope of your land: 1=Plain 2=Hilly 3=Steep

17. How do you perceive the quality or fertility of your land?

1=Fertile, 2=Medium Fertile, 3=Less Fertile, 4=Overused, 5=Poor

18.Farm size (in kert): _____

19. Major crops the household is growing during 2005/06 cropping year

Crops	**Area (kert[1])**	**Yield(quintal/kert)**	**Total production (quintal)**
1. Tef			
2. Wheat			
3. maize			
4. sorghum			
5. Enset			
3. Chickpea(Shibra)			
4. Lentils(Misir)			
5.Grass pea (Guya)			
6. Fenugreek(Abish)			
7. Linseed (Teleba)			
8.Oats (Aja)			
9. Other (specify)			

[1]*Kert = 0.25 ha*

20. Number of productive household labor members (working age)

1=1-3 members 2= 4-6 members 3= Above 6 members

21. What is the main source of portable drinking water for the household?

1= piped into the household 2= piped for the common use

3= well-water 4=. River water 5= spring water

22. The household asset ownership (household wealth index): 1= Low 2=Medium 3= High

23. The land holding size owned by households:

1= Landless 2= Less than half a hectare 3= Half to one hectare 4= Above one hectare

24. Main source of income for the household

1= Farming 2= Livestock 3= Mixed Farming 4= Beekeeping 5= Others (Specify)

25. What are the different sources of food for the household family? (Rank)

Produces	**Rank**	**Total amount using the local unit of measurement**
Maize		
Wheat		
Barely		
Teff		
Sorghum		
Enset		
Others		

26. Is there any farmers' cooperative in your area? 1=Yes, 2=No

27. Are you a member of farmers' cooperative? 1=Yes, 2=No

28. If yes to 28, are you benefiting from the services of farmers' cooperative?

1=Yes, 2=No

Section III. Household food security status

29. Frequency of occurrence of food shortage in the household:

1= Not Occurred 2= Rarely 3= Sometimes 4= Always

30. Frequency of sleeping without food in the household:

1= Not Occurred 2= Rarely 3= Sometimes 4= Always

31. Frequency of starvation for the whole day in the household:

1= Not Occurred 2= Rarely 3= Sometimes 4= Always

Section IV. Sources and contents of rural communication

32. What is the main source of development information for the household (rank)?

Radio	Model farmers
Co-farmers	Woreda Leadership
Extension agent	Donor agencies
Farmers forum	Workshop on agriculture
Cooperative society	Other (specify)
News paper and TV	

33. The level of respondents' satisfaction with the distribution of information:

1. Very satisfied 2. Satisfied 3. Not satisfied

34. What is the main focus or contents of the rural communication? (Rank)

On the use of selected seeds and fertilizers	
On improved agronomic practices	
On improved agricultural implements	
On improved livestock breeds	
On water harvest and irrigation	
On market and credit access	
On soil and water conservation	
On issues other than the above	

35. Rank the relative importance of source of information for the household development activities:

Source of information	**Rank**				
	First	**Second**	**Third**	**Fourth**	**No response**
Face- to – face conferences to the HH development activities					
FTC training to the HH development activities					
Radio to the HH development activities					
Newspaper to the HH development activities					

Section V. Access to and utilization status of print and electronic media

37. Do you have radio? 1.Yes 2. No

38. Do you listen to radio farmer program? 1. Yes 2.No

39. Do you consider radio as useful source of information 1. Yes 2. No

40. How do you observe the relative importance of local radio messages to the development activities of the household?

1= Very Relevant 2= Satisfactory 3= Not Satisfactory 4= Irrelevant 5= Do not know

41. Do you think that the local radio messages are relevant to the seasonal agricultural plans of the household?

1= Yes 2= No

42. Do you have mobile? 1. Yes 2.No

43. Do you consider radio as useful source of information 1. Yes 2. No

44. Participation in newspaper discussion panels:

1= Regularly 2= Sometimes 3= Rarely 4= Never

45. Constraints to utilization of improved agricultural communication

Constraints	**Rank***
Lack of radio set/mobile	
Lack of power (electricity)	
Poor reception of radio signals	
Inadequate technological content	
Unavailability spare parts	
Lack of money to buy batteries	
Inappropriate scheduling of program	
Lack of access of radio set	
Lack of interest	
Lack of adequate of time to listen	
Inability to ask relevant question and get the feedback from the radio presenter	
Clarity of language used in presenting the program	
Innovation difficulties/complicated to understand	
Short duration of the program	
Other (specify)	

** Ranking may be categorized as:*

1. Very serious constraint

2. Serious constraints

3. Not serious constraints

Section VI. Indicators of effectiveness of rural communication process

46. What is your own perception on the following indicators of effectiveness of face to face rural communication process? (15 indicators of effectiveness are selected)

Characteristics	**Answers**		
	Yes	**No**	**Do not know**
1. Clarity and simplicity of the messages of the face-to-face communication			
2. Capacity of the communicators in conveying the messages properly			
3. The communicator ensures the level of understanding of the participants.			
4. The communicator creates conducive and participatory communication climate for the participants			
5. Appropriateness of date and time on which the communication meeting is arranged			
6. Friendly relationship with the communicator			
7. Depth of response from the communicator to the issues raised by the participant			
8. The recommendations given by the communicator consider the resource and intellectual capacity of the participant			
9. Perceived relevance of the content from the communicator			
10. The communicator considers the participant's capacity and level of knowledge during communication			
11. Clarity of the language used by communicators			
12. Compatibility of the messages with the culture and customs of the community			
13. Communicators advise the participants to convey the			

messages to others			
14. Revision of themes of the past sessions by the communicators during the start of new Topics			
15. Communicators allow the participants to freely debate on issues			

Section VII. Level of participation of households in the communication process (5 indicators are selected)

47. Mark the level of participation of households in the communication

Characteristics	**Mark (X)**
1. Perceived level of participation of the HH during community meetings	
1.1. Passive listener while the communicator delivers the message	
1.2. The communicator allows me to raise some questions	
1.3. They make short presentation and leave most of the time for usto discuss and finally summarize the topic	
1.4. Few opinion leaders dominate the session while most of us keeplistening	
1.5. Do not know	
2. Perceived level of acceptance of the views of the HH duringcommunity sessions	
2.1. We raise few questions that are answered by the communicator	
2.2. We simply complement their presentations but don't argue on it	
2.3. We raise issues and make comments, but there is hardly any mechanism to follow up their implementations	
2.4. We make hot discussions and argue freely to the extent that wecan make alterations on the contents	
2.5. Do not know	
3. Ever provided suggestions/comments for change regardingdevelopment plans to concerned bodies	
Yes	
No	
4. Implementation of suggested changes you ever made	
Yes	
No	
5. How planning is carried out	

5.1.I myself plan based on the knowledge gained	
5.2.I plan with close assistance of the extension agent and others	
5.3.I am simply given a plan prepared by the ex/agents and others	
5.4.I don't have plans, and have never planned	

Section VIII. Institutional factors related to communication

48. How do assess the internal organization and facility of the FTC?

1= Fully equipped 2= Partially equipped 3= No capacity to offer training

4= Do not know 5. No response/not exist

49. What is your own perception on the FTC skill training provision and demonstration?

1. Very good 2.Good 3.Poor 4. Very poor 5. None 6. I don't know

50. How do assess the technical support given by the extension agent?

1. Very good 2.Good 3.Poor 4. Very poor 5. Never

51. How many times the extension agents visit you?

1= At least once in a week 2= Once in a fortnight 3. Once in a month

4. Once in quarter of a year 5. Never being visited

52. How many times the household visit the extension agent in seeking technical support?

1= At least once in a week 2= Once in a fortnight 3. Once in a month

4. Once in quarter of a year 5. Never being visited 6. Never went to extension agent

Thank you so much for you cooperation!

GebreyesusWerede

Annex 2- Questionnaire for the key informants

(Kebele administrator, extension workers, and Kebele women representatives)

1. What is your perception on rural communication concepts and practices and its importance?

2. What do you say on your access to source of knowledge?

3. What are the challenges for effective knowledge sharing in the rural communication process?

4. How do you evaluate knowledge sharing and communication tools you are using now?

5. What knowledge sharing and communication tools do you think would be suitable toimprove knowledge sharing and joint learning on the issue?

6. Is there any good practice/innovation recommended by you in rural communication thatreached and adopted by the farmers in this way (related to agricultural productivity)?

7. How frequently do you share these knowledge and information with other actors?Mark √

Stakeholders	Always	Sometimes	Rarely	Never
Farmers				
Woreda Agricultural office				
NGOs/project workers				
Research center				
Farmers' cooperative members				
Input supplier organizations				

8. How many extension agents exist at present in your center?
   1) One 2) Two 3) Three 4) More than three
9. Do you think the extension agents were assigned according to the required profession?
   1) Yes 2) No
10. Is the number of agents sufficient to perform the job? 1) Yes 2) No

11. How do you rate the incentive provision, salary payment and promotion venue of your organization?

No	Item /Incentive	Poor	Good	Very good	Excellent
01	Incentive provision				

02	Salary payment				
03	Promotion avenue				

12. Do you have transportation facilities to implement the mandatory roles of FTC?
    1) Yes 2) No
11. If yes, what types of transportation do you have?
    1) Bicycle 2) motor Bicycle 3) horse/ mule 4) others specify
12. If No, How do you serve your clients?
    1) By going on foot
    2) By private means of transport /bicycle
    3) By Public transport
    4) Others (specify)
13. Is your FTC accessible for transportation throughout the year?
    1) yes 2) No

14. In order to make the rural communication effective and in the meantime to increase the agricultural productivity, what must be done from stakeholders?

_____

_____

_____

_____

_____

Thank you so much for your cooperation!

GebreyesusWerede