

**Approaches and Acceptability of
Development Communication for
Agricultural Development in
Central Ethiopia: Case of Ada'a Wereda**

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Dedicated to:

my dear father Tadesse Chekole,
my dear mother Wude Hailu and
the bygone beloved grandma Imahoi Chekolech Dessie

Table of Content

Acknowledgements.....	iv
List of acronyms.....	v
Definition of terms.....	vii
Abstract.....	1
CHAPTER ONE: INTRODUCTION.....	2
Background.....	2
Statement of the problem.....	3
Hypothesis.....	5
Research questions.....	6
Objectives.....	6
Significance of the study.....	6
Scope of the study.....	7
Theoretical orientations of the study.....	7
Clarification of concepts and analytical tools.....	8
Development.....	9
Communication.....	9
Participatory communication.....	10
Development communication.....	10
Extension.....	11
Organization of the paper.....	12
CHAPTER TWO: LITERATURE REVIEW.....	13
Section I. Development Communication: Roles, approaches, methods.....	13
Evolution of development communication.....	13
Interface of communication and development.....	14
Roles of development communication for development.....	14
Main approaches of development communication.....	17
Top-down approach.....	20
Participatory approach.....	23
Integrated approach.....	26
Methods/channels of communication.....	28
Interpersonal methods.....	28

Group methods.....	29
Mass media methods.....	30
Highlight of Ethiopian media and its coverage of agricultural extension communication	33
Section II. Highlight of agricultural extension in Ethiopia: past to present.....	35
Before 1967	35
During 1967–1995	36
Since 1995.....	39
CHAPTER THREE: DATA COLLECTION AND ANALYSIS METHODS.....	42
Introduction	42
The study area	42
Sampling technique and sample size	44
Sampling technique	44
Sample size	45
Respondent characteristics.....	45
Data collection, presentation and analysis.....	46
Data collection.....	46
Data presentation and analysis.....	48
CHAPTER FOUR: PRESENTATION AND INTERPRETATION OF RESULTS.....	49
Introduction	49
Explanation and interpretation of results	50
CHAPTER FIVE: SUMMARY OF FINDINGS AND RECOMMENDATION.....	69
Introduction	69
Summary of findings	70
Suggested solutions.....	74
End notes	76
References	79
Internet citations.....	84
Electronic/CD Sources	85
Annexes	I
Annex 1. List of respondents	I
Annex 2a. Guide questions for the FGD with peasant farmers	III

Annex 2b. Guiding questions for the FGD with DAs.....	VI
Annex 2c. Guide questions for the FGD with MoA PR Experts	IX
Annex 2d. Guiding questions for the FGD & in-depth interview with Extension Communication Experts with the MoA.....	XII
Annex 2e. Guide questions for the FGD with journalists who produce agricultural programs	XV
Annex 2f. Guiding questions for the in-depth interview with Ada'a Wereda Agricultural Extension Team Leader	XVIII
Annex 2g. Guide questions for the in-depth interview with the DZARC Extension Research Coordinator	XX

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List of acronyms

ADDP	Ada'a District Development Project
ADLI	Agricultural Development-Led Industrialization
AEST	Agricultural Extension Study Taskforce
ARDU	Arsi Rural Development Unit
AWAED	Ada'a Wereda Agricultural Extension Department
BARDU	Bale-Arsi Rural Development Unit
BDA	Bilateral Development Assistance
CADU	Chilalo Agricultural Development Unit
CDP	Community Development Program
CPPs	Comprehensive Package Projects
DA	Development agent
EARO	Ethiopian Agricultural Research Organization
EARS	Ethiopian Agricultural Research System
EIAR	Ethiopian Institute of Agricultural Research
EPID	Extension and Project Implementation Department
ETV	Ethiopian Television
ER	Ethiopian Radio
EPA	Ethiopian Press Agency
FAO	Food and Agriculture Organization of the United Nations
FDRE	Federal Democratic Republic of Ethiopia
FG	Focus group
FGD	Focus group discussion
FSS	Food Security Strategy
GTZ	German Technical Cooperation
HADU	Humera Agricultural Development Unit
IAR	Institute of Agricultural Research
IECAMA	Imperial Ethiopian College of Agriculture and Mechanical Arts
ILRI	International Livestock Research Institute
IMF	International Monetary Fund
IK	Indigenous knowledge
IKS	Indigenous knowledge system

IT	Information technology
LDCs	Less developed countries
MDA	Multilateral Development Assistance
MoA	Ministry of Agriculture
MoPED	Ministry of Planning and Economic Development
MPP-I	Minimum Package Project I
MPP-II	Minimum Package Project II
NEIP	National Extension Intervention Program
NGOs	Non-governmental organizations
ODA	Organized Development Assistance
PADEP	Peasant Agriculture Development Extension Program
PADETES	Participatory Demonstration and Training Extension Systems
PRP	Poverty Reduction Paper
RARIs	Regional Agricultural Research Institutions
SAP	Structural Adjustment Policy
SIDA	Swedish International Development Agency
SMCR	Source-Message-Channel-Receiver model of communication
TAHADU	Tach Adiabo and Hedekti Agricultural Development Unit
T&V	Training and Visit
TV	Television
UNESCO	United Nations Children's Fund
UDHR	Universal Declaration on Human Rights
WARDA	West Africa Rice Development Association

Definition of terms

Access: according to the final report of the 1977 UNESCO meeting in Belgrade, Yugoslavia, access refers to the use of media for public service. It is also defined as opportunities available to the public to choose varied and relevant programs and to have a means of feedback to transmit its reactions and demands to production organizations (Berrigan 1979, quoted in Servaes, 1996a: 18).

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

Agricultural development: Refers to increases in production and productivity of agriculture through efficient use of labor and land resources, technologies/innovations, and inputs.

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

Communication channels/ methods: tools and/or means such as mass media, posters, telephone, letters, exhibitions, field days, demonstrations and, by which communicating parties share and exchange meaning on one-to-one, group, or mass bases.

Conventional media: all communication media including radio and television but excluding the Internet, mobile phones and other new forms of wireless communication media.

Diffusion: a special type of communication by which an innovation is communicated through certain channels over time among the members of a social system (Rogers, 2003: 5-6).

Farmer: in this paper, it refers to a person engaged in different agricultural activities such as farming, livestock rearing, beekeeping, and agro-forestry, on subsistence basis.

'Idir': A traditional social structure in a given village previously for handling burial and mourning ceremonies but has recently started engaging in development activities as well.

'Iqub': A traditional saving and credit structure formed by villagers or some common interest groups of people.

Indigenous knowledge: the store of experience and knowledge of a society which forms the basis for decision making when familiar and unfamiliar problems and challenges are encountered (Cashman, 1989 quoted in Awa, 2002:127).

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

Inter-personal channels: although these literally involve face-to-face exchange between two individuals, in the context they are used in this paper interpersonal channels also include such means as epistles and telephone which are used in exchange or sharing of between two individuals.

Mass media channels: refers to radio, television, newspapers, and the like used in sharing and exchanging messages or information with wide and large audiences.

Model farmers/progressive farmers/contact farmers: farmers thought to be 'early adopters' and are used in the 'progressive farmer strategy', which is a top-down approach, of extension - in the expectation that once they adopt an innovation, their example will be followed by others (Black, 2000: 493).

Modern media: Refers to the Internet, mobile phones and other new cyberspace communication channels.

Participation: according to the final report of the 1977 UNESCO meeting in Belgrade, Yugoslavia, participation implies a higher level of public involvement in the planning, production, and management of communication systems (Berrigan 1979, quoted in Servaes, 1996a:18).

Traditional media/indigenous media: Communication methods such as storytelling, theatres, and songs (Bessette, 2004: [Internet])

Abstract

Agricultural extension efforts in Ethiopia are criticized for not helping bring notable agricultural development, due to, among the main reasons, faulty communication approaches along the research-extension-farmer linkage. This qualitative study was an attempt to examine the approaches and acceptability of development communication practices and strategies for agricultural development in Ude, Ankaka, Wajitu, and Tedicha Kebeles of Ada'a wereda, Central Ethiopia. Illustrative data was collected through focus group discussions and in-depth interviews held with farmers, development agents (DAs), Ada'a Wereda Agriculture Bureau Extension Team Leader, Extension Research Coordinator of Debre Zeit Agricultural Research Center, Extension Communication experts from the Extension Department of the Ministry of Agriculture (MoA), Public Relations experts with MoA, and journalists who produce agricultural programs for Ethiopian television, Ethiopian radio, and Addis Zemen newspaper. Results showed that the development communication approach in use for sharing and/or exchanging agricultural extension messages is participatory when interpersonal and group communication methods are used and in which a multi-directional flow of information was witnessed. The approach was identified largely non-participatory when mass media methods of communication are used, in which programs or texts are shaped by journalists with little involvement of farmers and agricultural experts. Shifting from previous assumptions of researchers, DAs and extension workers as expert, benefactor and non-participant, researchers, DAs and extension workers today have started assuming collaborator, participant, risk-taker and activist roles. It was also found that most farmers prefer and accept interpersonal methods and group methods of communication, which are central to the participatory communication approach. Reasons mentioned as bases for these preferences include the fact that interpersonal methods allow farmers to receive individual support from DAs and researchers, to participate actively in extension activities, and to feel a sense of belongingness with the extension system. Many farmers preferred group methods because these methods allowed them the chance to learn from each other. Farmers' preference for the mass media method was the least owing to: a) the limited access of farmers to the mass media especially printed materials and television, b) the inappropriate timing of agricultural programs broadcast on radio, c) the lack of farmers' direct participation in programs, d) the mistrust of farmers to messages communicated through mass media, and e) the generality of extension messages communicated through mass media. Absence of alternative broadcast stations such as rural community radio stations where farmers can produce extension messages for farmers was mentioned as the most likely reason for the top-down approach in mediated extension communication.

CHAPTER ONE: INTRODUCTION

Background

Agriculture is the mainstay of Ethiopian economy. The sector provides livelihood for about 85% of the country's population, and contributes about 50% of the gross domestic product and 85% of exports (AEST, 1994: 9; MoA, 1996: 1; FDRE, 2006: 4; Kassu, 2000: X). The country also has huge animal resources in the continent. Cognizant of these contributions and potentials of the agricultural sector, the government has set the development policy of the country as Agricultural Development-Led Industrialization (ADLI), which is also the base of the Food Security Strategy (FSS) and the Poverty Reduction Paper (PRP) (FDRE, 2002: 1; FDRE, 2006: 4; MoPED, 1993: 18).

However, agricultural development of the country is too sluggish and in some years even fails to feed even producers themselves for a number of reasons including poor extension system, which in turn is a function of factors like inappropriate communication interventions to disseminate technologies to farmers (Seyfu, 2000: IX; Belay, 2003: 23).

To abate these challenges and transform the sector to a better state, the Ministry of Agriculture (MoA); Ethiopian Agricultural Research System (EARS) which includes Ethiopian Institute of Agricultural Research (EIAR), regional research institutions, parastatals like the International Livestock Research Institute (ILRI) and local and external non-governmental organizations (NGOs) working on agriculture, have been undertaking agricultural research and development activities. But, as MoA (1996: 2) emphasizes, the generation of technology by research is not a sufficient condition for its adoption by users. Thus, if a technology generated by research is to result in certain positive changes, the innovation has to be communicated (MoA 1996: 2; Ongus, 1997: 5; Atherton, 1977 cited in Ongus, 1997: 33, 63; Ponnusamy, 2003) in a right way to the right audience through the right media and at the right time.

In this regard, extension communication takes central position for sharing information about research results to end users and thereby helping them improve agricultural production and

productivity. This is because, the application of communication for development in LDCs has wide-ranging goals. In this regard, Melkote (1991) cited in Waisbord (2001: [Internet]) notes that the ultimate goal of development communication is to:

- raise the quality of life of populations, including increase income and well-being,
- eradicate social injustice,
- promote land reform and freedom of speech, and
- establish community centers for leisure and entertainment.

But, these goals of development communication can be met when there is effective communication supported by appropriate strategies and approaches. As the Food and Agriculture Organization of the United Nations/German Technical Cooperation (FAO/GTZ) (2004: [Internet]) indicates, effective communication among research, extension and farmers depends on:

- policies and markets conducive for communication,
- involvement of farmers through participatory methods,
- communicative capacities and attitude of research/extension services,
- farmers' organizations as partners in communication,
- utilization of different media options, and
- monitoring and impact evaluation of communication strategies.

The implication is that absence of these success factors has a detrimental impact on agricultural development.

Statement of the problem

Ethiopian agriculture is characterized by low productivity of land, labor, inputs and technologies to the extent that sectoral produce is inadequate even to feed the country's population (Belay, 2003: 23), which is growing at 2.6 % per year (FDRE, 2006: 3). Despite its rich endowments of agricultural land, working population, and untapped water and energy resources which add up to the huge potential for surplus agricultural production, the country has become one of the largest food aid recipients in the continent (Habtemariam, 1996: 162).

This is because agricultural production and productivity are largely constrained by a host of problems such as recurrent droughts, natural resource depletion, weak marketing systems, high input prices, and lack of appropriate technologies (Belay, 2003: 23; Habtemariam, 1996: 162; Seyfu, 2000: IX).

Even though different extension approaches have been exercised in the country since the 1950s, these approaches have not contributed to bringing sizable increases in the production and productivity of smallholder agriculture (Belay, 2003: 24). Technology adoption by farmers has not been promising because, as (Belay, 2003: 24) points out, the different extension approaches have been planned and implemented without the participation of the people they are meant for. Information and messages about new and improved agricultural technologies including inputs and farming practices, are not appropriately communicated to users, who mainly are subsistent farmers¹

The roles of communication for development are either neglected or overlooked. In this regard, Mundy and Sultan write:

Without communication...progress would be unimaginable [difficult]. Why, then, is it so neglected in development efforts? Huge research organizations, whose sole purpose is to develop new farming technologies (i.e., generate new information) and *communicate them to farmers*, relegate the communication part to the dustbin. Instead of creating wealth, research findings gather dust. Agricultural extension agencies (never very effective) are being downsized and closed, to be replaced by—well, nothing. The potential of media that do reach people in remote rural areas (channels such as radio, market traders, churches and mosques) is ignored. (2001: 1)

FAO/GTZ share a similar view in stating, at a workshop held in May 2005 on *Effective communication between agricultural research, extension and farmers*, that the inefficiency of many countries in agricultural development has been attributed, among other factors, to inadequate communication along the Research-Extension-Farmers continuum, including poor information packaging and lack of communication systems. The following extract from Black further consolidates this view.

Think of all the studies thoroughly investigated, and with demonstrable results of great benefit to the industry [agriculture], that have never reached the farm

gate. Millions of pounds have been spent around the world on research studies that remain buried in libraries and never reach the community on behalf of whom the initial study was undertaken. (2000: 494)

The sentiments expressed above hold true for Ethiopia. Agricultural research institutions have been developing and adopting lots of technologies since late 1940s (Belay, 2003: 24; Getinet *et al.*, 1996: 94). However, these technologies have not been effectively shared with farmers. Most of them outdate even on shelves. A number of agricultural extension projects in the past ended unsuccessful. For example, Michael (1999: 31) indicates that poor communication between extension workers and peasants is one of the main documented reasons for the sluggish economic achievement of Arsi Rural Development Unit (ARDU)² (See Chapter 2 for details). Neither are recent communication approaches free of such blames.

Many people attribute this mainly to inadequacy and low acceptability of communication approaches employed along the research-extension-farmer continuum. This may be one reason why adoption of agricultural technologies by farmers is so sluggish, and the resultant agricultural development is so stagnant. However, research work in this area has been scanty.

Given this lack of research, this study is an attempt to examine approaches of development communication for agricultural development in Ada'a 'wereda'³, Central Ethiopia and acceptability of those approaches by farmers.

Hypothesis

The communication approach/es being used for facilitating agricultural development in Ada'a wereda are not identified and not acceptable to facilitate creation, exchange and sharing of information about technologies which encourage endogenous development in agricultural production and productivity.

Research questions

This study seeks to answer the following research questions.

1. What communication approach/es is/are practically in use in the wereda to communicate extension messages to farmers?
2. Which of the communication approaches are more acceptable to farmers in Ada'a?
3. What are the reasons for the acceptability or otherwise of one communication approach over other approaches?
4. Which media (TV, radio, print) do farmers have access to?
5. What is the role of development agents, extension workers, and researchers in the communication process?
6. What roles are accorded to farmers in the communication process including in developing contents of extension messages to be transmitted through media?
7. What methods of communication, i.e. interpersonal, group, or mass method are used in communicating extension messages with farmers?

Objectives

The main objective of this study is to generate valuable information on what communication approaches (top-down, horizontal grassroots, participatory, or any other) are being used in Ada'a wereda to facilitate adoption of agricultural technologies by peasant farmers. The study is designed also to look into whether or not the communication approaches employed by the Wereda Agriculture Bureau are appropriate and acceptable by farmers to facilitate creation, exchange and sharing of information/meaning about technologies that encourage endogenous agricultural development through increased production and productivity.

Significance of the study

Results of this study could be valuable in designing and fine-tuning communication approaches and methods in such a way that communication can stimulate and be part of

agricultural development processes. The work provides a comprehensive review of agricultural extension approaches in Ethiopia since the inception of extension work in the country and examines the current extension approaches and their acceptability by focusing on four kebeles in Ada'a wereda. Thus, it would be an important contribution to the fields of agricultural extension and communication fields. More specifically, it could provide good insights for media educators and students, policy makers, extension workers, agricultural researchers, and DAs into the need for appropriate and acceptable communication approaches to facilitate agricultural technology adoption by farmers and thereby contribute to increasing agricultural production and productivity. Besides, the work may serve as a springboard for people who want to do researches in areas such as development communication, research-extension-farmer linkages, media use and roles in agricultural development.

Scope of the study

Given the shortage of time and resources, the research was limited to studying approaches and acceptability of development communication for agricultural development in four rural kebeles of Ada'a wereda, Central Ethiopia. The kebeles are Ude, Ankaka, Wajjitu and Tedicha—all located around the suburbs of Debre Zeit town.

Qualitative data was collected from a total of 39 people of whom 24 are farmers. Data was collected through eight focus group discussions and seven in-depth interviews. Had there been adequate time and financial resources, more data could have been collected from more kebeles and more samples, thus making the results more generalisable. Evidence collected was largely qualitative and illustrative. A supplemental quantitative dimension might have been relevant to further triangulate the results, but time didn't allow for that.

Theoretical orientations of the study

There are mainly two divergent theoretical models in the area of development communication: the non-participatory pro-mass media theory of diffusion and the participatory pro-interpersonal pro-group methods theory of participation (Melkote and Steeves, 2001: 297–301; Gandelsonas, 2002: 2–3; Servaes, 1996a: 17; Bessette, 1996:

[Internet]; Morris, 2000: [Internet]). The diffusion model derived from Evert Roger's (1962) 'diffusion of innovations' theory views development communication largely as a product of mass media, whereas, the participatory model which is based on the model of empowerment adopted from the Brazilian educator Paulo Freire (1970) holds that development communication is rather a horizontal process of information exchange and interaction (Morris, 2000: [Internet]; Servares, 1999: 84–85; Gandelsonas, 2002: 3).

Again there are two major approaches to participatory communication: the Freirian approach which is based on group dialogue and stresses the form or intentions of communication act and the UNESCO (1977) approach which emphasizes access to media, participation and self-management (Servares, 1996a: 17; Servares, 1999: 84–85; Morris, 2000: [Internet]).

Though it is not a specific theory, there is also an integrated approach which is the hybrid of the diffusion theory and the participatory theory, and also which is gaining wider acceptance in the current development communication scenes. However, as this study looks into the type and acceptability of development communication approaches in use to facilitate agricultural extension in the study areas, it is not based on one specific theory.

Clarification of concepts and analytical tools

The terms development, communication, development communication, participatory communication and agricultural extension sound familiar while tricky. Confusions in definitions of these terms emanate mainly from the differences in the perceptions about development and perceptions about communication in the process of development that prevailed during different periods (Moemeka, 1994a: vii; Masilela, 1996: 97; Melkote and Steeves, 2001: 39) (See Chapter two for details).

Due to these differences in conceptions about development and about communication in the different periods, each of the terms development, communication, development communication, participatory communication and extension assumes different meanings under different contexts. The terms even become fluid unless the conceptual framework they

are used in is given. To avoid such ambiguities, the conceptual frameworks the terms are used in this paper are given as follows.

Development

Development in this paper does not refer to what Tehranian describes as earlier identifications of development and communication, which identify development as simply referring to “economic growth and its measurements of increases in material output in time” and communication as merely “synonymous with mass communication and its ideological apparatus of persuasion and manipulation” (Tehranian, 1996: 49).

The term development is thus used in this paper in the sense that it refers to "a multi-dimensional 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 absolute poverty" (Todaro, 1977: 62). This is because development is not solely about economic or technological growth, but it is also importantly about increases in knowledge and skills, growth of new awareness, enhancing of the human spirit and the fusion of human confidence (Moemeka, 1994b: 11; Servaes, 1999: 77). However, we should still note that what constitutes ‘improvement’ or ‘change for the better in the different aspects of human life’ is, as Melkote and Steeves (2001: 44) indicate, debatable mainly because also the reference criteria may vary from place to place and from time to time.

Communication

Communication should be understood as a process in which the parties involved create, share and exchange meaning with reference to cultural, political, and economic contexts of a given system and it is inseparable from those contexts, because the communication processes and institutions are inextricably interwoven (Rogers, 2003: 5–6; Melkote and Steeves, 2001: 44). It is shared meaning—a process that involves issues at grassroots, community, regional, national, and global levels of consideration and participation (Melkote and Steeves, 2001: 44). This implies that communication involves the use of different approaches and methods of communication at the different levels of issues and depending on prevailing contexts.

Participatory communication

A dualistic approach to communication and development that sets the platform for people to participate not only in program implementation, but also in program formulation (Nwosu 1995b: 345), program evaluation, and in benefit as well (Yoon, 1996: [Internet]). This is because farmer participatory approaches bring researchers and DAs to farmers' field for group discussions—where attention is focused on the farmers' problems (WARDA (2000: 16).

Participatory communication, also participatory development communication, can alternatively be understood as a planned activity based on participatory processes and on media and interpersonal communication, which facilitates dialogue among different stakeholders around a common development problem or goal, with the objective of developing and implementing their set activities to contribute to its solution, or its realization, and which supports and accompanies this initiative (Stuart and Bery, 2002: 199; Bessette, 2004: [Internet]). It could be considered as an integral part of all development initiatives (Servaes, 1996a: 14).

The entire logic to use participatory communication in this meaning rests on Nyerere's noble statements:

People cannot be developed; they can only develop themselves. For while it is possible for an outsider to build a man's home, an outsider cannot give the man pride and self-confidence in himself as a human being. Those things a man has to create in himself by his own actions. He develops himself by what he does; he develops himself by making his own decisions by increasing his understanding of what he is doing, and why; by increasing his own knowledge and ability, and by his own full participation—as an equal—in the life of the community he lives in. (1973: 60)

Development communication

Development communication refers to the application or use of communication to achieve development objectives (Moemeka, 1994b: 12; Melkote and Steeves, 2001: 44; Wilkins, 2000: 197 cited in Morris (2000: [Internet])). It can also be understood as, “A total process that

includes understanding the audience and its needs, communication planning around selected strategies, message production, dissemination, reception (and perhaps interpersonal discussion with peers), and feedback, rather than just a one-way, direct, communicator-to-passive-receiver activity” (Rodgers, 1976: 13). The concept of development communication should not be confused with that of communication development, which refers to developments in the infrastructure for communication (Moemeka, 1994a: viii).

Extension

As van de Ban and Hawkins (1996: 9) cited in Black (2000: 493) state, extension should be understood as a process that involves the conscious use of communication of information to help people form sound opinions and make good decisions. The purpose of extension should be understood as "to help people and communities identify potential improvements to their practices, and then provide [share or exchange with] them with the skills and resources to effect these improvements" (The Australasia Pacific Extension Network, 1999 cited in Black, 2000: 493).

Agricultural extension is thus, “A two-way or multiple-way process, in which several parties should contribute relevant insights, and which may have action implications for all parties (not only for farmers, but also for researchers, extension workers, policy makers, agro-industries, etc) involved in the process” (Leeuwis and van den Ban, 2004: 26)... Alternatively, agricultural extension can also be understood as “a series of embedded communicative interventions that are meant, among others, to develop and/or induce innovations which supposedly [i.e., demonstrably] help to resolve (usually multi-actor) problematic situations” (Leeuwis and van den Ban, 2004: 27).

The insights to be communicated can be new ideas, techniques or materials and agricultural extension as a communicative process should allow farmers to communicate their problems, experiences and needs with other relevant parties including DAs, researchers, educators, policy makers and even agro-industries in the form of feedback (Habtemariam 1996: 168; Leeuwis and van den Ban, 2004: 26).

Organization of the paper

This thesis is organized into five chapters. The first chapter introduces the research idea, the hypothesis, research questions, and research objectives. It also provides the scope and significance of the work, and clarification of concepts.

The second chapter has two sections. Section one contains a comprehensive review of principles and practices in development communication including extension communication. It also gives highlights about Ethiopian media and its coverage of agricultural extension messages. Section two of this chapter reviews agricultural extension practices and the communication strategies employed in Ethiopia since the 1930s.

Methods used for data collection are presented in chapter three. In chapter four the qualitative data generated through focus group discussions and in-depth interviews are presented and interpreted.

The last chapter contains a summary of major findings of the study and commendable lines of action drawn from the results of the study. References, annexes, and end notes are included at the end of the main texts.

CHAPTER TWO: LITERATURE REVIEW

Section I. Development Communication: Roles, approaches, methods

Evolution of development communication

Ample literature including Melkote and Steeves (2001: 47, 67), Servaes (1999:18–19), Nwosu (1995a: 20), Kumar (1994: 77) and Samarajiva (1987), Amborse (1983), Schiller (1969, 1976), Smythe (1981) cited in Servaes (1999: 17) attest that the emergence of development communication as a special communication genre and development in its modern form date back to the post-World War II⁴ (1939–1945) years when the countries of Asia, Africa, and Latin America were claiming their independence, self-reliance, and nonalignment.

Kumar (1994: 77) highlights that development communication was started in the 1960s as a field of mass communication for educating and persuading societies in LDCs to adopt innovations from the western societies and thereby attain modernization.

Different scholars such as Masilela (1996: 97) and Moemeka (1994a: viii) note that development communication has since then traversed different paths following changes in development thinking. For example, Moemeka (1994a: viii) comprehensively summarizes that the place assigned to communication in the process of development has passed through three basic stages:

1. from when communication was considered merely tangential to development, i.e. communication in support of development
2. to when it was seen as important to development, i.e. development support communication, and then
3. to when it is now recognized as crucial, i.e. development communication.

Scholars such as Ugboajah (1980: 5) cited in M'Bayo and Onwunmechili (1995: 110) and Mowlana and Wilson (1987: 143) cited in Servaes (1996d: 76) and Moemeka (1994a: vii) state that the specific roles placed on communication in the process of development are dictated by extant perceptions about economic development. These range from modernization theory⁶ (Melkote and Steeves, 2001: 71; Servaes, 1999: 17) through dependency theory characterized by marginality and trickle down and then through multiplicity and another development theory which advocates self-help and self-reliance (Servaes, 1999: 18).

Interface of communication and development

The interdependence between development and development communication can be best expressed as, "If development can be seen as a fabric woven out of the activities of millions of people, communication represents the essential thread that binds them together" (Fraser and Villet, 1994 cited in FAO, 2005: 12). Communication, if participatory, is the key to involving people in all phases of a development endeavor from problem identification and planning through implementation, benefiting, and evaluation so that people become leading actors in and generators of their own development rather than being passive recipients of external support (Bessette, 1996: [Internet]).

It is visible from this statement that development and communication are mostly inextricably interwoven processes that have many things to identify with each other. These communalities include their obsession with participatory approaches and their goal orientation toward economic growth, equitable distribution of facilities and benefits, human development, national cohesion and endogenous development, and integration of traditional and modern systems (Moemeka, 1994b: 13; Rogers, 1976: 132).

Roles of development communication for development

In the following extract, while his intension was to amplify the role of information, Schramm elucidates the role of communication in development.

By making one part of a country aware of other parts, their people, arts, customs and politics; by permitting the national leaders to talk to the people, and the people to the leaders and to each other; by making possible a national-wide dialogue on national policy; by keeping the *national* goals and the national accomplishments always before the public—thus modern communication, wisely used, can help to weld together isolated communities, disparate subcultures, self-centered individuals and groups, and separate developments into a truly national development. (1964: 44)

From these statements, we can understand that communication:

- stimulates grass-roots participation in development activities,
- helps harmonize efforts
- stimulates discussions that lay foundations to sustainable development.

Besides, communication:

- can serve as an effective policy instrument throughout the problem identification, formulation, solution and control phases of a development policy (Schoen, 2002: 254–255),
- enables to consider people’s attitudes and traditional wisdom in a development strategy (Fraser and Villet, 1994 cited in FAO, 2005: 12).
- helps to adapt views, to acquire new knowledge, and to spread new messages to large audiences (Fraser and Villet, 1994 cited in FAO, 2005: 12).

Thus, today, interventions that aim to achieve development position development communication as their enabler to achieve the goals they set. Many scholars even emphasize that development communication is a pillar of development, which has become a universal need—a development imperative without which concrete social and economic developments are difficult to achieve (Burke, 1999: [Internet]; FAO, 2005: 13; Kunczik, 1992: 25; Moemeka, 1994b: 3; Nwosu, 1995a: 20). This may be why Marx and Engels (nd) cited in Mwalana and Wilson (1990: 69) consider communication as “one of the most unique products-and producers-of society's development”. It is thus, as Paul Mitchell, Director of the Development Communications Division of the World Bank underlines, as important as social and economic analysis (FAO, 2005: 13).

Therefore, Schramm (1964: 207) underlines that if a nation wants to speed up the growth of such elements as literacy, education, electrification, and the like as well as industry and agriculture, it must pay simultaneous attention to the growth of its mass communication and vice versa. This is because, as UNESCO (1980) cited in M'Bayo and Onwunmechili (1995: 106) indicates, as a nation strives to improve the quality of life for its citizens, inadequate communication may make the attainment of that goal slower, extremely difficult, or impossible. Conversely, "When a nation takes steps to improve its communications network, the changes touch every facet of life" (Kelley, 1982 cited in M'Bayo and Onwunmechili, 1995: 106).

These analogous statements show that mass media development and national development have become concomitant more than ever before (Servaes, 1999: 25) and emphasize the importance of considering communication as an integral part in the diagnosis of needs and in the design and implementation of development projects and development policies at large (MacBride, 1980: 25 cited in Melkote and Steeves, 2001: 19).

Regarding what should be done for development communication to contribute effectively to development, UNESCO (1975) cited in Moemeka (1994b: 14) identifies that it should, among other points,

- identify peoples' needs and provide citizens sufficient access to the communication systems with feedback mechanisms to and from governments,
- provide horizontal and vertical (interactive) communication linkage at all levels of society and communication channels,
- support local communities in preserving their culture and encourage local media to serve as effective channels, and
- raise people's awareness of development projects and opportunities.

It should also, according to Schramm (1964: 252–263),

- be as easy as possible to establish and maintain 'local media',
- give special attention to combining mass media with interpersonal communication,
- seek as much feedback as possible from its mass media audiences.

These points appear pertinent to Ethiopia, where the media development is at its infancy and where the role of the media in particular and development communication in general in development appears invisible.

However, we should also note that communication by itself cannot effect development (UNESCO, 1980 cited in M'Bayo and Onwunmechili, 1995: 106) and that communication is neither universally causal of development nor perpetually irrelevant to it (Whiting, 1976: 100). As Whiting (1976: 113) indicates, there are contexts when change can occur without communication, and communication without change. For example, some incidences like natural calamities or winning a Golden League race or a lottery all cause changes in which communication has no role

In sum, because development and development communication are interwoven, changes in the underlying understandings about communication and about development are accompanied by changes in the methods and approaches included as part of development communication (Melkote and Steeves, 2001: 39).

Main approaches of development communication

Development communication approaches can be classified on the basis of three interrelated factors:

1. methods and purposes of communication (Moemeka, 1994c: 55)
2. pattern followed in the design of a communication strategy (Mefalopulos and Kamlongera, 2004: 21) and
3. the role assigned to development communication in efforts toward attaining set development goals, the methods to be used and pattern in the design of a communication strategy (Mutter, 2002: vii; Gandesonas, 2002: 2).

Based on the methods and purposes of communication (Moemeka, 1994c: 55–61), classifies development communication approaches into three.

- a. Interpersonal approach**, which includes extension and community development method and ideological and mass mobilization method.

- **Extension and community development method:** the oldest method of using communication to generate development through communicating useful practical information on issues such as agriculture, home economics, health, civic responsibility, law and order, sanitation, and so on, through interpersonal methods of communication such as face-to-face contacts, handbills, letters, and telephone.
- **Ideological and mass mobilization method:** a method which makes extensive use of interpersonal communication and in which the channels are activated not by development agents but by political cadres for propaganda consumption.

b. The mass media approach, which includes centralized mass media method and localized (decentralized) mass media method.

- **Centralized mass media method:** a method that emphasizes the control of media infrastructure and the direction, planning, production and flow of mass media messages by a central authority in the urban headquarters with little or no involvement of the targeted audiences.
- **Localized (decentralized mass media method):** Which draws strength from the Democratic-Participant Media theory (McQuail, 1983 cited in Moemeka, 1994c: 60) and puts strong emphasis on interaction with the target audiences, and on the establishment of local media channels to provide access for the people.

c. The integrated approach, which combines the interpersonal and the mass media approaches and links the combination with traditional modes and channels of communication.

With respect to the pattern followed in the design of a communication strategy, Mefalopulos and Kamlongera (2004: 24–26) classify the communication approaches into three main categories, which neither overlap nor digress from the previous three approaches.

a. Discussion themes/message design, which includes information, persuasion, promotion and advocacy.

- **Information:** refers to the treatment and the transmission of raw data meant to provide objective facts on specific issues.
- **Persuasion:** a communication process aimed at influencing others.

- **Promotion:** this is informing people to aware and familiarizes them, or even make them accept ideas, concepts or behavior by creating interest or a favorable impression of an idea or practice through motivation, image creation and/or positioning.
- **Advocacy:** an approach which can be used not only in a bottom-up mode but also in a horizontal fashion in order to facilitate or set a favorable environment, generate support of decision-makers, both within and outside the community. Such an approach is usually adopted to create a conducive environment that may lead to a policy that is sensitive to the issues in question.

b. Instructional design, which includes education and training, and aims to increase knowledge comprehension and maybe change attitudes, usually through a formal learning environment.

- **Education:** can be carried out at an interpersonal individual level (teacher-student situations), at a group level (meetings, specific gatherings, schools, etc.) or at a mass level (publications, radio and television).
- **Training:** aimed to empower people with specific skills and knowledge.

C. Group mobilization activities design, which includes networking or partnership, group formation and community mobilisation.

- **Networking/partnerships:** attempts to have different groups or associations, within or from outside the community, joining and working together to address specific issues or problems more effectively.
- **Group formation:** consists of encouraging and facilitating the formation of groups of people, usually with the community, having a specific set of tasks aimed at addressing a specific issue.
- **Community mobilization:** This is the systematic effort to involve the community in actively participating in the resolution of a specific development issue.

Many scholars such as Melkote and Steeves (2001: 43), Yoon (1996: [Internet]), Moemeka (1994c: 55–56), Awa (1995: 245), Bessette (2004: Internet), Morris (2000: [Internet]) broadly categorize the basic development communication approaches again into three depending on the purpose assigned to communication.

- **Top-down approach**, which is the feature of diffusion model characterized by one-way flow of information from center to periphery (Tehrani, 1996: 50),
- **Participatory approach**, which is characterized by two-way exchange and sharing of information and knowledge through bottom-up, grass-roots, and horizontal flows, and
- **Integrated approach**, which combines elements of the two approaches as appropriate.

Each of these approaches finds different origins, purposes and characteristics grounded on the different perceptions about development and about the associated role of communication. Acceptability and impact-orientation of each approach considerably vary depending on distinct features of the approach.

From the highlights of each approach outlined thus far, it is evident that both the bases of classification and the types of approaches under the different categories have much in common with regard to the methods stipulated and the purposes assigned to each. For example, advocacy follows bottom-up and horizontal approaches (Mefalopulos and Kamlongera, 2004: 25) and is thus both top-down and participatory, whereas persuasion and promotion mainly assume a top-down approach (*Ibid*: 25). Again, both interpersonal and mass media methods can be top-down or participatory (bottom-up, horizontal) (Moemeka, 1994c: 56, 61). Thus, in this paper, approaches of development communication refer to the approaches classified mainly based on the direction of flow of information while at the same time taking into account the methods of communication and patterns of message design. This is mainly because this categorization appears inclusive of the other classifications as well.

Top-down approach

As mentioned before, this approach is the main feature of development communication rooted with the understanding of development as modernization. According to Mody (1991: 26) cited in Nwosu (1995a: 31), in the top-down approach of development initiative and its parallel centralized media system, the receivers wait at the bottom passively and the benefits of development trickle down to them. Lack of participation of the people in the planning of their own growth and development is apparent. The main features, also pitfalls, of this approach can be summarized as follows.

- i. Communications planning is based on the diffusion of innovations framework, and this was meant to achieve modernization in the LDCs by transmitting development messages through mass media (Melkote and Steeves, 2001: 120–121; Mody, 1991: 26 cited in Nwosu 1995a: 31) and thereby effecting adoption of innovations of western societies by the ‘less knowledgeable’ societies of the LDCs. This idea was originated because the economic theories developed during the 1960s considered underdevelopment to be a consequence of industrial and technical backwardness of the LDCs, which could only be resolved, according to them, by importing know-how and capital from the industrialized countries and then by transferring that know-how to people of LDCs through mass media (Kumar, 1994: 77).
- ii. It is thus identified with pro-innovation, pro-mass media, pro-literacy, pro-persuasion, and pro-top-down biases⁷ (Melkote and Steeves, 2001: 53) and also with pro-individual-blame bias⁸ (Rogers, 2003: 118).
- iii. Because it is associated with the understanding of development as exogenous making, i.e. coming from outside rather than from within, it emphasizes content from outside at a disregard of indigenous knowledge.
- iv. Communication is viewed as a vertical top-down information transfer (Morris, 2000 [Internet]), emphasizing hierarchical one-way flow of information, with no room even for feedback from bottom/periphery (Rogers, 1973 cited in Melkote and Steeves, 2001: 127). In this connection Awa recognizes that:

Early communication models, such as the "hypodermic needle approach"⁹, "magic bullet theory"¹⁰, (Lasswell, 1948), and the "modernization" concept championed by Lerner (1958)¹¹, are all top-down approaches to development in which people are targeted as passive and atomized masses of listeners, viewers or readers. Such an approach neglects the meanings and values of traditional knowledge. (1995: 245)

Another example is the *two-step flow hypothesis*¹² (Rogers, 2003: 303), which is an epitome of the hierarchic view of communication. Change agents such as DAs and extension workers assume the role of an expert, consider themselves as a benefactor and are thus non-participant focusing only on transmission of information to farmers (Melkote and Steeves, 2001: 352).

- v. The top-down approach is identified with the use of exclusive terms such as ‘dissemination’, technology ‘transfer’, innovation ‘diffusion’, ‘to’ people, and ‘for’ people (Servaes, 1996c: 82), which denote the non-participatory nature of the approach (Gandelsonas, 2002a: 3). This bestows one side with knowledge or omniscience while demystifying/trivializing users as ignorant or at least less knowledgeable. In such a setting, there is little or no common ground between or among the communicating parties, thus acceptance of the message turns questionable.

- vi. The process of communication is commonly expressed by the Berlo’s formula for the process of communication, i.e the Source-Message-Channel-Receiver (SMCR) model, which “reinforces the *omnipotent source* and the *passive receiver* assumption” (Melkote and Steeves, 2001: 108). This suggests that both the communication process and the content are not based on needs and demands of users. Thus, meaning may not be shared, and if at all it may, acceptability of the message by users will be left uncertain.

Owing to these drawbacks, the top-down approach of development communication has had negative impacts on efforts to enhance production and productivity of a given sector, like agriculture. For example, Black (2000: 493) indicates that although various means of communication have been used in agricultural extension in the past, the conventional model of extension—progressive farmer strategy—has focused particularly on farmers thought to be ‘early adopters’¹³ in the expectation that once these farmers adopt the new technology, their example will be followed by others. This is termed the linear adoption or diffusion model (Rogers, 1983 cited in Black, 2000: 493) in which the knowledge, skills and adaptive abilities of farmers themselves are systematically and unjustifiably devalued (Champers, 1983 cited in Black, 2000: 493; Habtemariam, 1996: 175).

Scholars such as Black (2000: 493), Chambers (1989) cited in Michael (1999: 18–19), Champers (1983) and Russell *et al.* (1989: 5) cited in Black (2000: 493) underline that for many years, the dominant model of agricultural extension put researchers in the forefront of developing and validating agricultural technologies and knowledge. The task of extension agencies was taken to be to promote the adoption of these technologies by farmers. This approach is usually considered a hindrance to reaching technologies to farmers. For example, in Ethiopia, the top-down approaches to agricultural research and extension created gaps in

the research-extension-farmer linkages (Habtemariam, 1996: 175), and thus technologies were not properly disseminated to farmers.

According to Nwosu (1995b: 436, 345–349), one of the major constraints to agricultural productivity in Swaziland in particular and in Africa in general derives from a weak extension system—a pure communication problem that rests in the undue concentration on source-side or supply-side issues to the disregard of demand-side considerations. This is largely because, as Nwosu (1995a: 45) indicates, since the last fifty years communication planning in most parts of Africa remained a largely western-derived formulation despite criticisms of these formulations. This ‘occidental cosmology’ has been a hindrance against involving people at the grassroots in the planning of development communication.

On top of this, Nwosu (1995b: 345) suggests a need for a fundamental reassessment of the approach of development communication within the context of a given development policy. This reassessment has led to criticisms against the top-down approach to development communication, which in turn lead to the inception of participatory approach to development communication.

Participatory approach

As Morris describes, “Participatory development communication is not a vertical process of information transmission from the knowledgeable to the less knowledgeable, but rather a horizontal process of information exchange and interaction” (2000 [Internet]). Participation and participatory communication are qualities of a vibrant development communication approach (Burke, 1999: [Internet]). There are many other features of participatory development communication embedded in this statement. It is horizontal not vertical; it emphasizes information exchange and sharing not transmission; it doesn’t put qualitative boundaries regarding knowledge of actors. Furthermore, as Awa (1996: 144), Nwosu and Onwumechili (1995: 433), Melkote and Steeves (2001: 352), Nwosu (1995b: 345), Schilderman (2002: [Internet]) indicate, participatory development communication:

- is people-centered, i.e. it takes into account cultural proximity, ecological friendliness and multiplicity of issues;

- involves analysis of issues and consideration of the needs and wants of the people at individual, group or organization, and community levels;
- requires change agents to be collaborator, participant, risk-taker and activist;
- aims at bringing development of people by increasing access of all citizens to economic, political, cultural and informational resources; and
- allows participation not only in terms of program implementation but also in program planning and evaluation.

Cashman (1989) cited in Awa (1996: 127), Chambers (1989) cited in Michael (1999: 18–19), Nyerere (1973: 60), Xavier Institute (1980: 11) cited in Servaes (1999: 89), Awa (1996: 135), Rogers 1996 cited in Moemeka (1994: 61), WARDA (2000: 16) advise that acknowledging, recognizing, and using farmers' IK and improving the interaction between extension workers and the local people are crucial to effect development. Therefore, agricultural researchers should start with problems, needs, priorities and IK of farmers, listen to farmers and draw out their intelligence instead of designing and doing the research from their own, i.e. the researchers', perspectives (Cashman, 1989 cited in Awa, 1996: 127; Chambers, 1989 cited in Michael, 1999: 18–19; Xavier Institute, 1980: 11 cited in Servaes, 1999: 89). This way, it is possible to undercut 'technology push' tendencies and encourage 'technology pull' approaches by farmers (Anderson, 2001: 59). The two-way communication is as important as the technology generation itself (Anderson, 2001: 59). Otherwise, as Rogers 1996 cited in Moemeka (1994: 61) indicates, the 'best' of the communication strategies will come to 'naught'; innovation-decision"¹⁴ will be delayed (Jabbar *et al*, 1998: 2) and farmers may even completely resist to adopt a technology because the technology may not be of their needs and interests.

The importance of employing participatory approaches in agricultural extension can be summarized as follows:

Without effective communication and interaction between the two groups [i.e. agricultural researchers and farmers, not only contact farmers], formal, official science loses a great store of knowledge, IKSs are replaced by inappropriate technology and practices, research and extension programs fail, the supply and variety of plants and animals decrease, and human beings become more vulnerable to starvation and disease. Farmers and scientists each need increased

understanding of the concerns and needs of others to overcome these barriers and to learn from and with each other. (Gupta, 1989 cited in Awa, 1996:135)

Besides, development communication strategy should help eliminate gender-based stereotypes which put women in a disadvantaged position while they play significant roles in agricultural production. Concerning this issue, Awa (1989: 2), Pettijohn (1987: 264) and Norem *et al* (1989) all of them cited in Awa (1996: 141–142) note that while women are the chief growers of agricultural produce in LDCs, their involvement in the planning and execution of agricultural development projects has been frustrated by stereotypes and they are as a result excluded from both the extension system and the problem identification phases of agricultural research and development activities. The following extract summarizes the importance of involving women in agricultural extension and communication systems and tips some advices as what should be done to remedy the situation.

First, men and women have different roles in production; their knowledge of their environment is similarly different and it is important to learn both systems. Second, women and men work from different resource bases and face different constraints; so knowledge produced and used by, say, men in one area may not be useful for women in the same area or for women who fill the same approximate role but in another area. Simply stated, men and women may have different knowledge about the same things, they may have knowledge about different things, they may organize knowledge differently, and they may preserve and transfer their knowledge differently. (Norem *et al*, 1989 cited in Awa, 1996: 142)

However, a single communication approach may not fulfill all these criteria. Thus a combination of methods is preferred. In this line, Mefalopulos and Kamlongera (2004: 24) and Black (2000: 493) advise that none of the approaches has to be used exclusively, and that adopting a combination of approaches and methods may be necessary in many occasions.

Integrated approach

The integrated approach is an amalgam of different approaches and methods selected on the basis of their relevance to communicate matter through context-specific considerations and at different phases of development interventions. It is an approach in which all the approaches and methods are combined in an appropriate ratio, depending on the identified felt needs and the socio-cultural, economic, and political realities of a social system (Moemeka, 1994c: 55; Burke, 1999: [Internet]) and thereby minimizes the limitations of the top-down/non-participatory and the bottom-up/participatory approaches (Morris, 2000: [Internet]).

This approach considers that despite criticisms of linear technology transfer models, there is still a need for access to reliable scientific information, just as there is a need to provide for active participation by farmers in research and development processes (Black, 2000: 493). Thus, “One-to-one exchange of information and advice, whether from farmer to farmer or from professional adviser to farmer (and vice versa), will continue to be important, so too will be the lifting of levels of formal education and training among farmers. New information technologies will facilitate some forms of education, training and information exchange, but will need to be supplemented by other extension strategies” (Black, 2000: 500).

Therefore, as McPhail and McPhail (1994: 194) advise, a viable development communication policy has to take into account that there is a horizontal level among and within institutions and among and within communities, and a vertical level within, between, and among institutions and also within, between, and among the grassroots and policy makers, which require simultaneous approach.

Nwosu and Onwumechili (1995: 433–434) and Moemeka (1994c: 54) outline a list of basic questions that are worth considering in charting some directions for communication and national development in Africa. Pertinent to this study among those questions are the following:

1. What are the development needs of the people?
2. How does one go about identifying those needs?
3. What appropriate technology exists in the communication market to assist in meeting these needs?
4. What role should the communication media play in the development process?

5. How should this role be performed to ensure that communication activities meet national development objectives?
6. What is the context of a given system's development goals, means, and priorities, with reference to prevailing forms of social, economic, political, and cultural organizations? (Nwosu and Onwumechili, 1995: 433–434).

These questions are relevant in designing approaches and strategies to development communication for agricultural development in Ethiopia. They may also help as a landmark for the choice of a communication approach.

As M'Bayo and Onwunmechili (1995: 116) state, the preference to communication strategies¹⁵ depends on literacy levels, levels of development, political systems, and population characteristics. Besides, the principles and norms which guide society must also guide the communication system—the structure of communication systems, flow of messages, the public both as an audience as well as a source of communication, and provisions for general access to the systems to ensure feedback all need be considered in development communication policy formulation (Lee, 1976 cited in M'Bayo and Onwunmechili, 1995: 116).

This also necessitates reference to a given media law governing the media functions. In this connection, Mefalopulos and Kamlongera write, “Since communication policies are influenced by the social, political and economic realities of a country, and since these factors differ from country to country, different societies hold different views on matters such as press freedom, media control and ownership, professionalism, and constitutional protection, all of which are relevant matters in communication policy formulation” (2004: 111).

Moreover, Awa notes that the ways in which communication takes place, the circumstances of communication, the language and language style used, and nonverbal behaviors of the communicating parties are all primarily a response to and a function of culture, because “communication is cultural” (1995: 241). Thus, participatory development communication approaches also consider barriers such as linguistic and cultural domains (Fell, 2000: 509).

Methods/channels of communication

These refer to the means or tools through which communication takes place. Singh (2003: 213), AEST (1994: 18–19), MoA (1996: 4) classify communication methods in agriculture into three:

1. interpersonal methods–DAs, contact farmesr, model farmers, personal letters, office calls;
2. group methods–demonstrations, field visits, farmers' days, farmer field schools, group meetings, study tours, DAs.
3. mass media methods–radio, television, newspapers, leaflets, posters, brochures, mass meetings, campaigns, and exhibitions.

Interpersonal methods

These can refer to face-to-face or non-mediated communication (Leeuwis and van den Ban, 2004: 196) or one-to-one correspondences by means of letters, telephone, e-mail, etc. The use of interpersonal methods in development communication has been highlighted by communications researchers such as Lazarsfeld, Berelson and Gaudet's in the formulation of the *two-step flow model* (1944), and Roger's *diffusion of innovations* (1962), who emphasize that messages first become known through mass media and then few opinion leaders reach them to masses through interpersonal communication (Morris, 2000 [Internet]. Morris [2000: Internet], Moemeka (1994b: 4), Melkote and Steeves (2001: 85) also indicate that Lerner's *Empathy model*¹⁶ which he introduced in his seminal work *the passing of traditional society* (1958) has marked a strong emphasis on the importance of interpersonal communication as a method of development communication (Servaes, 1999: 24–25).

According to Morris (2000: [Internet]), formal interpersonal communication, such as campaigns and planned communications with development agents, experts, and other people, and non-formal interpersonal communication such as communication with friends, family, peers, relatives, and other potential opinion leaders, innovators, or early adopters can prove more effective than mass communication on certain cases/contexts.

Although interpersonal communication methods reach limited audience, they allow for in-depth dialogue, stimulate active learning and opinion change, insight into audience feedback, and allow high relational support and spatial flexibility, among the many advantages they offer (Leeuwis and van den Ban, 2004: 196). These methods can be particularly useful when:

- there is a need to tackle a specific and unique problem,
- problems are too sensitive and emotionally laden to discuss in a group, and
- problem-solving has no collective dimension (Leeuwis and van den Ban, 2004: 197).

These methods also help in changing attitude of people; enhance effectiveness of group and mass methods and facilitate feedback (Singh, 2003: 213). However, they are expensive, do not reach many people, and allow the DA to develop favoritism to certain members of the community (*Ibid*).

Group methods

Chambers *et al.* 1989 cited in Black (2000: 495) notes that the use of group processes offers advantages such as:

- the pooling of skills, knowledge, experience and other resources;
- drawing on a wider spectrum of ideas and thus reaching better solutions than individuals;
- integrating information from various sources, including knowledge from outside the group;
- economies of scale; and
- risk sharing, and thus developing potentially more adventurous solutions to problems.

According to Singh (2003: 216–217), group methods:

- enable the extension worker to have face-to-face contact with many people at a time,
- facilitate sharing of knowledge and experiences,
- offer more opportunities for feedback and interaction, and
- stimulate to action better than mass media can do

These methods are also appropriate for farmer-to-farmer dialogue and interaction. Thus, they may facilitate adoption by stimulating a sense of competition among farmers. On the other

hand, group methods may be inappropriate for farmers who prefer discussions with the DA or researcher on one-to-one basis. They cannot support a large number of people at a time, they permit vested interest to develop and thus farmers may not get equal access to extension communication (*Ibid*).

Mass media methods

The mass media methods include the conventional mass-media and the ‘hybrid media’—the internet (Leeuwis and van den Ban, 2004: 190, 196). The conventional media include a range of media options categorized based on the form they are presented as:

- mainly textual: newspaper, flyer, brochure, manual/book, etc;
- mainly auditive: radio, speech, songs, cassette, audio CD;
- mainly visual: poster, drawings/pictures, animation, slide show; and
- combinations (e.g. audio-visual): television, video (film), exhibitions, theatre or drama (Leeuwis and van den Ban, 2004: 190; Singh, 2003: 225–229).

The mass media can also be grouped into printed and electronic based on their version (Mefalopulos and Kamlongera, 2004: 49; AEST, 1994: 19).

Printed media include mass media such as newspapers, posters, pamphlets, banners, stickers, billboards, booklets, etc and group media such as flipcharts, picture codes (FAO, 1984: 144; Mefalopulos and Kamlongera, 2004: 62). These can be in text format, visual material format, text and visual combined format or visual discussion tools format.

Sources such as FAO (1984: 144) and Mefalopulos and Kamlongera (2004: 58) indicate that printed materials assist DAs and extension workers in interpersonal communication during training sessions or demonstrations and are particularly critical to provide accurate understanding of concepts, instructions and producers. This benefit can be realized if the materials are prepared carefully. Thus, when preparing print materials, one should be aware that culture, educational level of the audience, content to be presented, language, application/technical use, age, gender, and audience preferences for color, appeals, and perceptions of the community determine the context, closely related to the cultural element (Mefalopulos and Kamlongera, 2004: 62).

This applies to the electronic media as well. In addition to being aware of these factors, producers of messages which are meant to be communicated on radio, TV, and other audio-visuals should prepare them in proper approaches and formats. For example, radio in development context can be educational, documentary and cultural or participatory, e.g. rural/community radio, in approach (Mefalopulos and Kamlongera, 2004: 50). With regard to format, Mefalopulos and Kamlongera (2004: 51–52) note that radio programs can be in lecture or straight talk, interview discussion, drama, music, jingles/slogans, feature, magazine, or info-tainment formats.

We should also remember that the other powerful electronic media TV offers tremendous benefits in agricultural extension communication. Extension workers and DAs can conduct effective demonstrations by using visual aids such as charts, graphs, live objects, and blackboards to increase teaching effectiveness on television (FAO, 1984: 149).

Obviously, the Internet¹⁷, also known as the new technology, has a tremendously huge potential for use as a medium for communicating development messages. However, due to the literacy level and technical skills it requires on the one hand and access problems on the other, the internet is purely elitist and is thus the least used for sharing extension messages with farmers in LDCs, where less electrification, low education level, and low access to the internet are all hindrances.

In general, the mass media methods are advantageous in that they reach large audiences, offer immediacy (electronic media), help to reinforce or change existing views, mobilize interest, are relatively cheap if large audience is covered, can complement and supplement other channels, can be carried with to different places (radio, printed materials) (Schramm, 1964, 114–139; FAO, 1984: 147; Singh, 2003: 225; Leeuwis and van den Ban, 2004: 192–194). However, mass media methods are less focused, do not allow much synchronical interaction between communicating parties, their use results in low relational support, and less interpersonal support (Singh, 2003: 225; Leeuwis and van den Ban, 2004: 192–194).

To minimize such limitations, certain cases may be communicated using the interpersonal method, others through group method, others through mass media method and still others by combining different methods. Integrative media methods may offer the possibility of achieving greater effect (FAO, 1984: 144, 147; Moemeka, 1994c: 55, AEST, 1994: 19). In

this regard, Schramm remarks, “Mass media can be effective, and interpersonal communication can be effective, but, the two together can sometimes be uniquely effective” (1964: 259).

Awa (1995: 245) holds that the integrative media approach allows for reaching a wider and stratified audience using the right media at a right time. Concerning the benefits of employing such approach, Valbuena (1991) quoted in Awa (1995: 245) affirms that traditional media can be combined with mass media not only to expand outreach to audience but also to preserve these media. The converging mass communication and information technologies would be important channels to development communication and so are small group, interpersonal and pedagogic strategies of communication, traditional forms of communication and folk media, and even religious and spiritual practices (Melkote and Steeves, 1994: 39). Mass communication can trigger interpersonal communication (Morris, 2000: [Internet]). To increase impact, facilitators in training sessions or demonstrations on interpersonal communication can be assisted by print materials (Mefalopulos and Kamlongera, 2004: 58). Valbuena (1991) quoted in Awa (1995: 245) advises that considering the complementarity of the media forms, their adherence to local needs and events, and joint message-design and development exercise is important when folk media forms can be integrated with mass media. Skills in using and integrating all the channels and media are very valuable, but these channels and media must never be chosen or used arbitrarily (Schoen, 2002: 258).

In this regard, for example, Awa (1995: 247) asserts that while most mass media, particularly television and newspapers are limited to an urban, literate population, radio, especially when combined with oral drama, offers the possibility of a wider audience. Also Msimuko and Idoye (1982, 22) cited in Awa (1995: 247) and Nwosu and Onwumechili (1995: 441) underline the invaluable importance of indigenous media as communication channels, especially in rural areas of Africa where large proportion of the population depend on oral tradition. Given these realities, the traditional media can be considered even a panacea to bridge the cleft of ‘digital divide’ (Melkote and Steeves, 2001: 64).

Generally, synergetic use of communication methods, based on prevailing contexts, offers effective development communication possible and increases the roles of development communication in national and sectoral development agenda (Burke, 1999: [Internet]).

Regarding the communication methods being used in the current extension system of Ethiopia, MoA (1996: 4–7) summarizes that although more than one media are applied in a given situation, PADETES gives more emphasis to demonstration (by participating farmers starting from the planning of the demonstration), radio forums, rural youth clubs, agricultural fairs, multipurpose trainings, rural institutes such as farmers' associations and traditional social structures like 'Iqub', 'Idir' and volunteers.

However, even if the role of radio in education, awareness creation, reaching large audience in short time and reinforcing messages is immense, the use of radio for extension is not significant in Ethiopia (MoA, 1996:4–5). On top of this, MoA (1996:6) recommends two strategies that help make better use radio for communicating agricultural extension messages with farmers. The strategies are:

1. explore the existing radio station by allocating enough time to communicate messages;
2. establish radio station for exclusive use for extension service in a participatory manner, and create radio listener group at village level.

Highlight of Ethiopian media and its coverage of agricultural extension communication

Mass media in Ethiopia began about a century back (Hadush & Semeneh, 2004: 1; Brook, 2000: 18). Since then, different daily and weekly newspapers were published in Amharic, other local languages and some international languages; and many radio and TV programs have been aired (Hadush & Semeneh, 2004: 1). After the present government held power in 1991 the legal grounds that very conditionally allow establishment and operation of private media in the country have been put in place. The major ones include:

- Article 29 of the Constitution of the Federal Democratic Republic of Ethiopia on press freedom,
- Proclamation 34/1992, which provided freedom of expression, and
- Proclamation 178/1999, which established the Broadcast Agency.

As a result, in the last decade there were some superficial developments in the Ethiopian media system. However, the media function in the country has still remained contentious and.

All the few broadcast media are under the monopoly and control of the government. The private press has been brought to almost non-existent.

In the face of these intricacies, development communication in Ethiopia is only young and even not properly rooted. As the government media devote much of the space for political agenda and administrative issues, coverage of extension communication presumably appears narrow despite the important role of agriculture for the country's economy. There is a 30 minute weekly 'Aude Geter' program on Ethiopian radio, event-led programs on ETV and 'Aude Mirimir' column on Monday editions of the daily Amharic broadsheet Addis Zemen. Other than these, there are event-led news items and limited printed materials on extension communication.

Section II. Highlight of agricultural extension in Ethiopia: past to present

This section reviews agricultural extension in Ethiopia since its inception. The review is made by categorizing it into three time frames:

1. from about early 1930s to late 1960s, i.e. when formal agricultural extension was started in the country and extension institutions emerged through external support,
2. from 1967 to 1995, i.e. when organized extension interventions were implemented through different projects and external support, and
3. After 1995, i.e. since the start of the current extension approach.

Before 1967

Many sources such as Belay (2003: 24) note that agricultural extension work in Ethiopia began in 1931 with the establishment of the then Ambo Agricultural School which was one of the first agricultural high schools offering general education with a major emphasis on agriculture and some demonstrations to the surrounding farmers. The creation of the MoA in 1943 witnessed the commencement of limited extension activities in different areas (Belay, 2003: 24).

However, extension work worth the name began in the early 1950s, i.e. 1952/3, following the establishment of the Imperial Ethiopian College of Agriculture and Mechanical Arts (IECAMA), now Alemaya University, with the assistance of Oklahoma University, USA under the Point Four Program¹⁸ (MoA, 1994 cited in Michael, 1999: 23; Kebede, 1969 cited in Habtemariam, 1996: 168; Getinet *et al*, 1996:94; Michael, 1999: 24 Belay, 2003: 24; AEST, 1994: 21). Extension activities were concentrated in areas such as the main campus at Alemaya, the central experiment station at Debre Zeit and Jimma Agricultural and Technical School where IECAMA had experimental stations (Belay, 2003: 25). However, this intervention was isolated and unilateral, without noticeable much involvement of the central government (Habtemariam, 1996: 168).

The MoA took up the extension function from the Alemaya College in the early 1960s (Getinet *et al*, 1996:94; Belay, 2003: 24; AEST, 1994: 24). Until the late 1960s, Community Development Program (CDP) was the strategy employed to identify and tackle problems of a given community through self-help projects that emphasized the development of agriculture, the rural artisan, its infrastructure and social welfare (Habtemariam, 1996: 168).

During 1967–1995

Scholars such as Goshu (1995: 385), Habtemariam (1996: 168), Belay (2003: 27), Bongor, (1996:7), Geremew (1999: 11–12), AEST (1994: 30) point out that intensive regional agricultural development projects, known as Comprehensive Package Projects (CPPs), were launched in late 1960s and early 1970s. Even the involvement of Ethiopian government in agricultural extension initiatives to promote production and productivity of peasant agriculture began with the establishment of CADU, supported by the Swedish International Development Agency (SIDA), in 1967 (Wondimu, 1999: 41; Getinet *et al*, 1996: 94; Belay, 2003: 32; Michael, 1999: 23).

Based on the experience gained from CADU, in the following years other comprehensive package projects such as the Walayita Agricultural Development Unit (WADU) in 1971 through the World Bank support, the Ada'a District Development Project (ADDP) in 1971 through the USAID support (Goshu, 1995: 385; Habtemariam, 1996: 168; Belay, 2003: 27; Bongor, 1996:7; Geremew, 1999: 11–12; Michael, 1999: 23), the Tach Adiabo and Hedekti Agricultural Development Unit (TAHADU) in Northwest Tigray, and the Humera Agricultural Development Unit (HADU) (Belay, 2003: 27) were initiated with various objectives and approaches through financial assistances obtained from different countries. However, only CADU was fully operational until it phased out in 1986 (Belay, 2003: 27).

CADU used mainly demonstration but also model farmers, farmers' days, posters and films as communication methods in reaching the farmers (Belay, 2003: 27; AEST, 1994: 36). Interpersonal and group methods were given attention with a disregard for the mass media method of communication (AEST, 1994: 36). The project was criticized for having had different setbacks. For example, CADU (1971) cited in Michael (1999: 26) indicates that the program activities included transmission of innovations to farmers, i.e., in the absence of

farmers' participation; and that communication between extension workers and farmers was poor.

On top of that, CADU was restructured in 1976 to become Arsi Rural Development Unit (ARDU), and latter to Bale-Arsi Rural Development Unit (BARDU) (Michael, 1999: 24; Wondimu, 1999: 41; Belay, 2003: 31; AEST, 1994: 36). However, also ARDU/BARDU was not successful. Although interpersonal and group methods were employed effectively through demonstrations, films, posters, flyers, farmers' days, experience sharing visits, and farmers' trainings, the mass media methods of communication were still underutilized, and thus it failed to reach many farmers (AEST, 1994: 39).

Although CPPs had a consistently positive effect and allowed major gains in extension knowledge in the project areas, they were proved difficult and impractical, because, as Habtemariam (1996: 168), Getinet *et al* (1996:94), AEST (1994: 43–44) note,

- it was difficult to comprehensively reach the whole country at a time, and
- it was expensive in terms of financial and human resources.

To cut back the limitations of the CPPs, the Imperial government, with support from SIDA, designed Minimum Package Projects (MPP- I in 1971 and MPP-II in 1975) as an alternative (Getinet *et al*, 1996:94; AEST, 1994: 43–44; Getachew, 2004: 14; Habtemariam, 1996:168; Belay, 2003: 29; Geremew, 1999: 11). These sources also indicate that the government established the Extension and Project Implementation Department (EPID) in 1971 in the MoA to administer the minimum package projects and supervise their activities.

The objective of MPP-I was to motivate, train and provide technical support to farmers and it employed interpersonal and group communication methods including model farmers, demonstrations, and farmers' days (AEST, 1994: 49–51).

MPP-I was phased out in 1981 and was replaced by MPP-II which phased out in 1985 (Belay, 2003: 28–29; AEST, 1994: 51). Even though the MPPs were designed to help improve production and productivity of peasant agriculture within the limits of available resources (Getinet *et al*, 1996: 96), Getachew (2004: 14) and AEST (1994: 53–54) indicate that the projects ended up without success mainly due to:

- failure to use the mass media as communication methods to reach messages to many farmers (AEST, 1994: 51, 58),
- ambiguities in accountability/undefined chain of command among actors,
- non-integratedness of the extension service,
- gaps in farmer-DA relationships,
- donor dissatisfaction with the development policy of the government (it was based on command economy),
- bureaucracy,
- DAs' engagement in political activities,
- dependency on expatriates and inability to sustain the program with own resources, and
- non-participation on the part of the beneficiaries in the planning process of the projects (SG-2000/Ethiopia Project, 2002 cited in Getachew, 2004: 14).

Many of these pitfalls happened because the package program is an outgrowth of the diffusion model which doesn't concern itself with the needs and aspirations of the users (Nwosu, 1995a: 24).

The Peasant Agriculture Development Extension Program (PADEP), which employed a modified Training and Visit (T&V) extension system replaced MPP-II in 1985 (Belay, 2003: 30; Getachew, 2004: 17; Wondimu, 1999: 42; AEST, 1994: 58).

Even if the T&V system is well known for its unified extension system, fixed DA-to-farmer ratio, scheduled visits to farmers plots, continuous training of staff, and strong research-extension linkage, it has been highly criticized for its top-down approach, poor use of group and mass communication methods, and disregard of the demand side (MoA, 1996: 4; AEST, 1994: 67, 69). Besides, the T&V strategy of PADEP is too rigid, short and lacking in useful interaction between agents and all interested farmers except in the case of contact farmers (Awa, 2002:135; Befekadu and Berhanu, 1999 cited in Belay, 2003: 31).

In general, despite various extension efforts in the past, the performance of agriculture in the country did not improve (Getinet *et al.*, 1996: 95). The extension systems also suffered problems related to organization, administration, and communication (Getachew, 2004: 19). Consequently, the shifts from one extension approach to another didn't yield meaningful

results. This is because, the approaches have been planned and implemented without the participation of the very people for whom they have been designed, did not address all the agricultural sub-sectors such as livestock, and reached farmers located only few kilometers away from both sides of all-weather roads (Belay 1998 cited in Belay, 2003:24). Thus, PADEP gave way to Participatory Demonstration and Training Extension Systems (PADETES) in 1995.

Since 1995

Following the change of government in 1991, the development policy of the country, which was Command Economy, was replaced by Market Economy. Because agriculture is found to be the starting point for initiating the structural transformation of the economy, the government formulated the development policy as “Agricultural Development-Led Industrialization (ADLI)” (MoA, 1996: 1; Getachew, 2004: 19; FDRE, 2002: 1; Geremew, 1999: 12; AEST, 1994: 8).

According to the former Ministry of Planning and Economic Development (MoPED), ADLI has its origin in the economic policy which states that one should “...adopt an overall industrial development orientation that is based on agriculture, that makes an extensive use of the country’s natural resources and that contributes to an inter-dependent development of the agricultural and industrial sectors” (1993: 1–2).

MoPED (1993:4–6) also states that among the origins of ADLI policy include:

- the enhancement of popular participation in economic activities and decision-making processes by ensuring the control over resources by regional authorities,
- the need to accord agriculture, which is the source of employment for the bulk of the population, but farming in particular, the priority it deserves,
- the need for ensuring links between the various sectors of the economy, but particularly between agriculture and industry, and
- the need for expanding the frontiers of production, both in quantity and quality, for attaining foreign exchange.

The need to materialize these foundations of the development policy necessitated the need to revisit the effects of previous agricultural extension systems and strategies. But none seems to have met the basic need of facilitating the transfer and adoption of improved technologies at sufficiently accelerating rate by the majority of the farming community” (MoA, 1996: 3; Getachew, 2004: 18).

With the intent to curb the different limitations in those previous approaches and partly motivated by the 1994 successes of Sasakawa Global 2000 (SG-2000) project in significantly increasing cereal yields, PADETES was adopted in 1995 from the SG-2000 extension strategy and the modified T & V strategy (Getachew, 2004: 18; MoA, 1996: 3; Getinet *et al.*, 1996: 95). Thus, PADETES combines the most pragmatic technology dissemination experiences of SG-2000 and strong extension management of the modified T & V (MoA, 1996: 3). As part of implementing the extension system, the government has launched the current National Extension Intervention Program (NEIP) strategy since 1995 mainly to assist small-scale farmers to improve their productivity through disseminating research-generated information and technologies on major food crops including teff, maize, wheat, sorghum as well as potato and forage crops, such as cow pea and vetch (MoA, 1996: 10).

PADETES puts emphasis on the importance of communication to materialize its goals. It advocates for the use of all types of extension communication methods, namely, individual, group, and mass methods depending on the type of message, and social structure (*Ibid*). Other major features of the PADETES are participatory demonstration and training; focus on package and on large-scale demonstration (Getachew, 2004: 19).

Getachew (2004: 19) also states that PADETES helps in addressing the interest of different target groups; in giving emphasis to extension organization based on functions like extension, multiplication, regulation, research and agricultural education functions; in encouraging the use of different communication channels and working in close collaboration with GOs and NGOs engaged in agricultural development. These qualities suggest that the system presupposes participatory approach; but yet the use of words such as 'diffusion', 'technology transfer' and 'beneficiary' in the ADLI policy document suggests that PADETES also has top-down domain. This might inhibit, at least implicitly, trends to use participatory approaches to development communication.

Whereas, if we want an extension service to function as part of an interdependent technology development, transfer and utilization system, the extension service must achieve a two-way flow of information (Burton, 1984 cited in Getachew, 2004:21).

From the foregoing discussions, we can understand that, “Extension draws heavily on communication for furthering aspirations;...and that the emphasis on ‘communication’ marks a shift away from a focus on education [educating farmers by trivializing their IK] to a focus on learning [also learning from farmers’ rich IK]” (Leeuwis, 2004: 27).

But, what communication approaches and methods are being used to facilitate agricultural extension in Ada’a Wereda? This study was designed to answer this question and other questions related to this one. The methods of data collection and analysis are presented in the following chapter.

CHAPTER THREE: DATA COLLECTION AND ANALYSIS METHODS

Introduction

Agriculture is the mainstay of Ethiopian economy (AEST, 1994: 9; ESTA, 1996: 4; MoPED, 1993:1; Kassu, 2000: IX). However, production and productivity of the sector is low due to many reasons (Getinet *et al*, 1996: 94). Even though different extension approaches have been exercised in the country since the 1950s, those approaches have not contributed for bringing sizable increase in the production and productivity of smallholder agriculture (Belay, 2003: 24). As MoA (1996: 2), Belay (2003: 24–25), and AEST (1994: 72) indicate, there is a widely held complaint that one of the reasons for this inefficiency of the sector is that information and messages about new and improved agricultural technologies including inputs and farming practices are not appropriately communicated to users.

This study is an attempt to examine approaches of communication for agricultural development in Ada'a wereda, Central Ethiopia and acceptability of those approaches by farmers.

The study area

Ada'a wereda is one of the weredas in East Shewa Zone of Ormia Region. The wereda lies between 8° 22' and 8° 56' N latitude and 38° 58' and 39° 22' E longitude (Wondimu, 1999: 5). It has a temperate climate with a monthly temperature ranging from 10°C to 20°C, average annual rainfall of 1100 mm³, and fertile chiefly vertisol soils (*ibid*).

The wereda constitutes 27 rural kebeles. The study was conducted in four of the 27 kebeles. These are Ude, Ankaka, Wajjitu and Tedicha—all located around the suburbs of the wereda capital Debre Zeit town, 47 km South-East of Addis Ababa (Figure 1).

Ude and Ankaka are located on the right and left sides of the main asphalt road that runs North-east of Debre Zeit. Again Wajjitu and Tedicha are found on the left and right side of

the main asphalt road that runs South-west of Debre Zeit to Addis Ababa. The major economic activities of the people in the study areas are agriculture and petty trade.

Ada'a wereda was chosen for the study because of three reasons.

1. It is one of the areas where organized agricultural extension interventions were started. These included the first experimental station that followed the establishment of IECAMA in early 1950s, and the Ada'a District Development Project (ADDP) in 1971 through the USAID support (Goshu, 1995: 385). In this regard, Wondimu (1999: 87) indicates that although traditional practices still characterize Ada'a's agricultural history, the 1960s could be said to have been a decade of agricultural dynamism in the district's history.
2. One of the active and premier agricultural centers, i.e. Debre Zeit Agricultural Research Center (DZARC) is found in the wereda, on the northwest suburb of Debre Zeit town, and
3. It is easily accessible for data collection within the short time available.

The four kebeles were chosen based on the existence of relatively better extension efforts and their easy accessibility for data collection. This decision was made based on the preliminary discussion held with the Extension Team Leader of the Wereda Agriculture Bureau. According to information from the Team Leader, in each of the 27 kebeles, agricultural extension activities are served by at least 1 DA and at most 3 DAs. Each kebele has about 500 households.

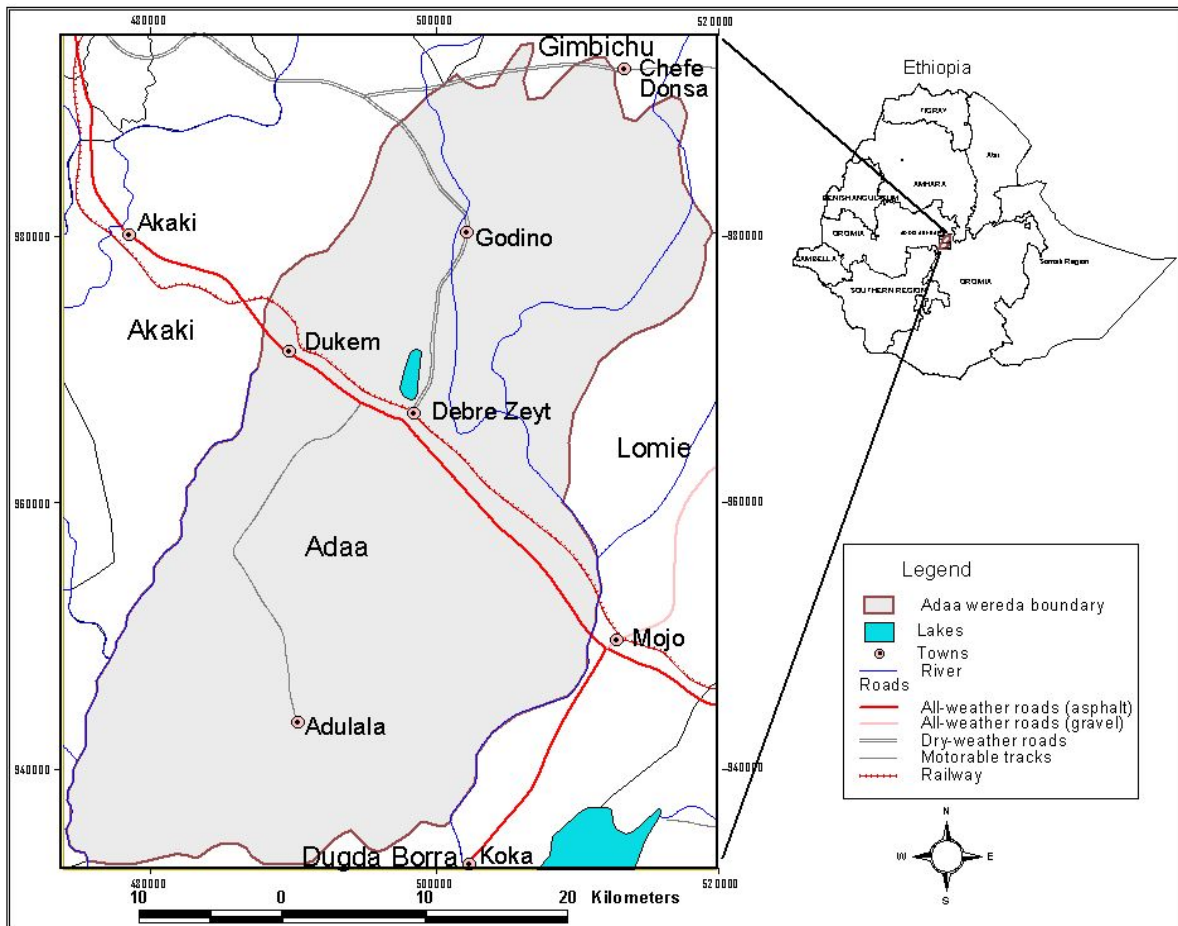


Figure 1. Map of Ada'a wereda

Sampling technique and sample size

Sampling technique

This study is entirely qualitative, intended to examine the inductive/observation-based hypothesis interpretively.

Thus, non-random purposive focus-group sampling was used to select participants for the study. The decision on which groups to select was directed by the groups' relevance to the research topic. The major criterion for selecting sample farmers was being user of agricultural

extension. DAs, Public Relations experts of the MoA, Extension Communication experts from the MoA, three journalists, the Agricultural Extension Team Leader of the Wereda Agriculture Bureau, and the Extension Research Coordinator of DZARC were purposely selected based on their involvement in extension communication.

Sample size

Data was collected from 39 people of whom 24 are farmers and are users of extension services; 4 DAs; 6 experts from the MoA; 3 journalists from Ethiopian Television (ETV), Ethiopian Radio (ER) and Ethiopian Press Agency (EPA) who produce agricultural programs; 1 Agricultural Extension Team Leader of Ada'a Wereda Agricultural Extension Department, and 1 Extension Research Coordinator at DZARC. In general, as this is a qualitative study, the samples are illustrative; they may not be representative.

Respondent characteristics

Respondents were different in age, level of education, and sex. With regard to age, 6 respondents were between 25 and 30 years, 15 between 31 and 40 years, 13 between 41 and 50 years and 5 between 51 and 60 years of age. The farmers were within the age range of 25 to 50 years: 4 of them between 25 and 30 years, 15 between 31 and 40, and 5 between 41 and 50 years of age.

There are big gaps in respondents' level of education ranging from few illiterate farmers to Bachelor and Masters Degree holders. Among the farmers, 3 are illiterate, 17 have attended formal education up to Grade 8, 3 have completed Grade 12, and one farmer has a MA in Military Pedagogy. All the DAs have Advanced diploma, i.e. 12 + 3 level of qualification. The remaining respondents have Bachelor degree and some Masters degree—some in agricultural fields, others in English Language + Communication, and others in English Language and Literature + short course in Journalism.

In terms of sex, 5 of the 24 sample farmers, 1 of the 4 sample DAs and 1 of the 3 journalists are female. The remaining 32 respondents are male. With respect to language, all the sample

farmers, DAs, the Wereda Extension Team Leader, and the DZARC Extension Research Coordinator use Oromifa, Amharic, and some of them English as well.

Data collection, presentation and analysis

Data collection

Data was collected through eight focus group discussions (FGDs) and seven in-depth interviews. FGDs were chosen as a tool of data collection for this research with the understanding that:

Focus groups have proved popular in this [communication research] area because they are seen to produce rich qualitative material well suited to detailed interpretive analysis (transcripts of people discussing their views and actions in their own words and, to some degree, on their own terms). Furthermore, their group basis is claimed to provide insights into the interactional dynamics of small groups. (May, 1993: 95 cited in Deacon *et al.*, 1999: 55)

With this understanding, FGDs were conducted with the different informants. Four development agents (DAs) in the four kebeles constituted one focus group (FG). Five farmers from each of the four kebeles were brought into four FGs; three Public Relations experts and three Extension Communication experts from the MoA formed two FGs. The last FG constituted three journalists that produce agricultural programs. These were the producer of 'Aude Geter' for Ethiopian radio, the producer of feature and event-led agricultural programs for Ethiopian television, and the producer of 'Aude Mirimir' column of Addis Zemen newsletter. In-depth interviews were held with four model farmers (i.e. farmers who are considered early adopters of agricultural innovations and can thus be models for other farmers) and three experts. One farmer was drawn from each kebele. Three in-depth interviews were held with the Agricultural Extension Team Leader of Ada'a Wereda Agricultural Extension Department, Extension Research Coordinator at DZARC, and a Senior Extension Communication expert from the Extension Department of the MoA.

In-depth interviews were conducted to triangulate FGDs results with deeper insights on the issues from key informants who it was hoped would provide richer understandings of the issues being explored.

With the intention to follow response-guided questions and thereby get adequate responses from respondents, the FGDs and interviews were guided by semi-structured questions. Four sets of semi-structured discussion guide questions were used: one set was used as a guide to the FGDs and in-depth interviews with farmers, one set to the FGD with DAs, one set to the FGD with media experts, and one set to the FGDs with PR and Extension Communication experts with the MoA Extension Department and to the in-depth interview with the Extension Communication Unit Head in the Extension Department of MoA. One set of semi-structured in-depth interview guides was used to guide the interviews with the Agricultural Extension Team Leader of the Wereda Agriculture Bureau and another set of semi-structured in-depth interview guides was used to guide the interviews with the Extension Research Coordinator of DZARC.

To minimize language barrier, the FGDs and in-depth interviews with farmers and the FGDs with DAs were pre-tested during the preliminary phase of data collection and were held in Amharic, whereas the discussions with the other groups were held partly in English and partly in Amharic depending on the clarity of ideas and concepts.

The discussions and interviews were recorded and also notes were taken. The recorded matter was transcribed. Then, the transcription and the notes were translated into English and analyzed by grouping similar responses together.

In addition, data was drawn from five other DAs and four farmers who are not from the study areas. These people are not part of the sample. But they were contacted and interviewed during an agricultural fair organized by EIAR on “Scaling up scaling out agricultural research”, when the researcher was gathering preliminary information. Non-sampled DAs were asked the same questions that were prepared for and forwarded to sample DAs, and non-sampled farmers were asked the same questions that were prepared for and forwarded to sample farmers.

One of the non-sampled DAs was from Tuli Gimtu kebele of Ada'a wereda, one from Dire Shuki Kebele of Ada'a, one from Hidi kebele of Ada'a, one from Adama wereda of East Shewa Zone, and one from Akaki wereda which is a neighbor of Ada'a wereda. Of course, the three additional DAs from Tuli Gimtu, Dire Shuki, and Hidi kebeles of Ada'a wereda took part in the FGD of sample DAs. Fortunately, all the DAs in nine kebeles in Ada'a wereda were attending some training at the Wereda Agriculture Bureau. Two of the non-sampled DAs out of the nine who came for the training had another urgent task during the discussion and didn't participate on the FGD.

With the belief that the additional data could give some clues about the generalizability or otherwise of the results of the study to those areas and could also give insights for similar studies in those areas, the additional data was, therefore, cross-analyzed when appropriate.

Data presentation and analysis

As indicated earlier, the data collected was mainly qualitative and illustrative. Thus, the presentation was explanatory/descriptive and the analysis interpretive. This is based on the understanding that "*qualitative research*, in its most general sense, refers to collecting and interpreting information about some phenomenon without concern for quantities" (Thomas, 2003: 33). On top of this, results obtained through the FGDs and in-depth interviews were described and interpreted against existing realities on the ground and the principles and experiences documented in the area. The interpretations included what respondents meant beyond what they literally expressed.

The following chapter provides the description and interpretation of results.

CHAPTER FOUR: PRESENTATION AND INTERPRETATION OF RESULTS

Introduction

As indicated in the previous chapters, this study examined approaches and acceptability of development communication for agricultural development in four kebeles of Ada'a wereda of Central Ethiopia. The kebeles chosen were Ude, Ankaka, Wajitu and Tedicha—all located around the suburbs of the wereda capital Debre Zeit town, 47 km Southeast of Addis Ababa. The study is purely qualitative—involving explanation and interpretation of results. For simplicity, the long strings of names and response items are coded as follows.

FG	focus group
II	in-depth interview
FGD1	focus group discussion with farmers from Ude kebele
FGD2	focus group discussion with farmers from Ankaka kebele
FGD3	focus group discussion with farmers from Wajitu kebele
FGD4	focus group discussion with farmers from Tedicha kebele
FGD5	focus group discussion with development agents of the four kebeles
FGD6	focus group discussion with PR experts from the MoA
FGD7	focus group discussion with Extension Communication Experts from the MoA
FGD8	focus group discussion with journalists
II1	in-depth interview with farmers from Ude kebele
II2	in-depth interview with farmers from Ankaka kebele
II3	in-depth interview with farmers from Wajitu kebele
II4	in-depth interview with farmers from Tedicha kebele
II5	in-depth interview with Wereda Agriculture Bureau Extension Team Leader
II 6	in-depth interview with a senior Extension Communication Expert from MoA
II7	in-depth interview with Extension Research Coordinator at DZARC

The results are explained and interpreted in the following sections.

Explanation and interpretation of results

1. Access to and use of media

1.1. Responses about farmers access and use of media

Regarding access to and use of media, results of FGD 1, FGD 2, FGD 3, and FGD 4 revealed that most of the farmers in the study areas have radio sets and attend to different programs. They said that farmers in the study areas listened to the bi-weekly radio program ‘Aude Geter’, which means ‘the Rural Setting’ aired from 7:30 to 8:00 am, and miscellaneous programs that deal with agriculture in different forms. Despite their interest in the program, they pointed out that the timing is not appropriate for them as the program runs while they are involved with field work. Results of FGD 8, which includes the producer of ‘Aude Geter’, attested to this result. The group members said, “When we go to rural areas to produce radio or TV programs, we have seen many times that farmers are already on their farm activities while “Aude Geter” runs; and because of that we feel we are toiling in vain”. Also FG 5, FG 7, II 1, II 2, II 3, and II 4 indicated most farmers in the study areas have access to radio. These respondents also reflected similar concerns about the timing. A non-sampled DA from Adama wereda said all farmers in the kebele she serves have radio set and DAs encourage them to regularly attend agricultural programs. Whereas, non-sampled DAs from kebeles of Ada’a wereda that are distant from town said some farmers don’t have access to radio.

This presumably shows that radio access and use by farmers in neighboring weredas to Ada’a is almost similar to the situation in Ada’a wereda and that distance from town has implications on radio access and use by farmers. The similarity of the situation of radio access and use by farmers in Ada’a wereda with the situation of radio access and use by farmers in neighboring weredas may be because farmers can buy radio with reasonable price, and, as FAO (1984: 147) indicates, because radio offers immediacy, listeners can take their radio wherever they go, even where electrical power is not available, radio provides the warmth of the human voice, and it can tie into the strong oral traditions of communities and overcome the literacy barriers that face print media.

Concerning access to and use of other media, results of FGDs 1–4, IIs 1–4, 6 and 7 showed that farmers in the study kebeles attend TV broadcasts during their days off and during holidays. This is because the study areas are in the suburbs of Debre Zeit town where there is

wide access to TV. According to these respondents, however, these farmers do not have the chance to regularly attend agricultural programs. Of course, FGD 1 and II 5 indicated that some farmers living near Debre Zeit have TV sets and that even their neighbors attend transmissions.

FGDs 1–5 and IIs 1–5 revealed that access to printed extension communication materials is almost nil. The results indicated that no newspapers, brochures, flyers, or production guides was distributed to farmers, and even DAs seldom got such materials. A member of FGD 1 stated: “even if many of us [farmers] are literate, we don’t get any printed material that teaches or advises us on how we can increase agricultural production”. The result of II 5 supported this finding as did the results of FGDs 6–8. A member of FG 8 said, "Farmers have only little access to 'Aude Mirimir' on Addis Zemen, and that is when the page is photocopied and posted onto a notice board. When the page appears, we [journalists] usually encourage researchers to post the page onto notice boards". Whereas, the result of II 7 indicated that DZARC researchers distribute some flyers and production guides to a few farmers such as members of farmer research groups, owners of demonstration plots, model farmers and also to DAs. Results of FGDs 1–5 confirmed this. This result suggests that extension communication through printed materials has not been given proper attention. According to II 5, this was accounted for to lack of budget at wereda level to prepare and distribute printed communication materials to farmers.

1.2. Responses about farmers’ preference of program or column

FGDs 1–5, IIs 1–5, and II 7 indicated that farmers prefer agriculture-related programs to other programs transmitted on radio. These respondents also pointed out that it is inappropriate to talk about program/column preference as access to TV and printed materials is limited. Concerning DAs’ role in helping farmers access mediated extension messages, FGD 1 and FGD 4 said that DAs usually advise farmers to attend agriculture-related programs which are transmitted on radio, and they often remind them of the day and time of transmission as well. A member of FGD 1 said, “Following that advice, many farmers these days selectively attend agriculture-related programs which are transmitted on radio”. This view was seconded by the result of II 1. This suggests that DAs’ play role in extension communication not only through interpersonal interactions but also through initiating positive repercussion on farmers’ choice of mediated extension communication.

2. Roles and commended activities of development communication

2.1. Responses regarding the role of communication in increasing agricultural production

Results of FGDs 5–8 and IIs 5–7 indicated that development communication has a crucial role in creating awareness about new technologies, popularizing technologies, stimulating adoption of technologies by farmers and, if the communication is two-way, in enabling future extension efforts meet farmers' needs. In this connection, the respondent in II 7 said, "If agricultural extension is to succeed, proper attention must be paid to the communication component". Results of FGDs 5–8 and IIs 5–6 supported this view. This result was in line with the idea that DEVELOPMENT COMMUNICATION has become a universal need—a development imperative without which concrete social and economic developments are difficult to achieve (Burke, 1999: [Internet]; Kunczik, 1992: 25; Moemeka, 1994: 3; Nwosu, 1995a: 20).

2.2. Responses regarding specific activities people involved in extension communication should accomplish to contribute effectively to agricultural development

FGDs 5–8 and IIs 5–7 pointed out that people involved in extension communication should present experiences of model farmers to the wider farming community; positively influence farmers toward adopting technologies through, for example, learning about their problem first and working with them toward the solution; and creating awareness in farmers by presenting agroecology-specific and relevant information to farmers in different localities. This is in line with the advice by UNESCO (1975) cited in Moemeka (1994b: 14) which states that, if DEVELOPMENT COMMUNICATION is to contribute effectively to development, it should:

- identify the needs of the people and provide citizens sufficient access to the communication systems,
- provide horizontal and vertical (interactive) communication linkage at all levels of society and communication channels,
- support local communities for cultural preservation and provide local media, such as community radio, to serve as effective channels,
- provide relevant information, and raise people's awareness of development projects and opportunities.

Whereas, results of FGDs 1–4, FGD 7, IIs 1–4, II 6 and non-sampled farmers indicated that people involved in extension communication should not only share extension messages with farmers but also should advocate for stabilization of the ever increasing prices of inputs such as fertilizer, seeds and pesticides at prices affordable to farmers. This result suggests that the current input prices negatively affect farmers' adoption decisions and implies the need to take corrective measures on the supply and price aspects. On the other side, a member of FG 8 revealed that subject matter specialists with the MoA and research managers are not usually interested to communicate through the print medium, and then suggested that all actors who have important information to share with farmers should exploit the potential of the print medium for extension purposes.

3. Communication approaches & methods, program formats, acceptability of approaches

3.1. Responses about the type of communication approach in use

Responses obtained from FGDs 1–5 and IIs 1–6 revealed that the DAs in the study areas communicate extension messages with farmers by working collaboratively with the farmers. According to the respondents, DAs, researchers and extension workers have come to realize that farmers have invaluable indigenous knowledge which the experts don't. They said researchers identify farmers' problems together with the farmer, seek solutions together, test and implement the solutions together and evaluate the result together. All the respondent farmers, a non-sampled illiterate woman farmer and another non-sampled farmer from Welmera wereda, stated that DAs, extension workers and researchers not only share the largely theoretical information with farmers but also learn from accumulated experiences and practical knowledge of even illiterate farmers'.

Results of FGDs 1, 4, and 5 and IIs 1, 4, 5 and 6 also showed that farmer-to-farmer interaction about technologies is gaining momentum through farmer research groups and model farmers. These indicate that in interpersonal communication in the study areas, message flows top-down, bottom-up, and horizontally. This is the main feature of a participatory development communication approach. Results of FGDs 6 and 7 and IIs 6 and 7 pointed out that the national extension strategy, PADETES, is based on demonstration and training of farmers on proven technologies in a participatory manner (MoA, 1996: 1).

Regarding why this approach is preferred, results of FGD 8 mentioned that it is because the approach:

- has positive impacts on technology dissemination,
- is in line with development goals of the government, i.e. with ADLI and
- helps to mobilize others by creating a sense of competition among audiences.

The rest of the respondents said it is because participation of people in their development is imperative in order that sustainable development can be effected; otherwise, people don't take any development project as their own. These views conform to the assertions of the Ninth United Nations Inter-Agency Roundtable on Communication for Development (FAO, 2005: 8). These are:

- Communication for Development is about people, who are the drivers of their own development.
- Communication for Development contributes to sustainable change for the benefit of the poorest.
- Communication for Development is a two-way process—it is about people coming together to identify problems, agree on visions for desirable futures, create solutions and empower the poorest.
- Participatory Communication for Development does not only apply to work with communities. It is an approach of importance to all stakeholders.
- Communication for development is about the co-creation and sharing of knowledge.
- Communication for development respects indigenous knowledge and culture; local context is key.
- Communication for Development is critical to the success of the Millennium Development Goals (FAO, 2005: 8).

In contrast to this, results of FGD 8 revealed that the communication through the mass media methods is largely top-down in which contents are developed and agenda are set by journalists or their crew. Results of this FGD also showed that except that they sometimes contact farmers as information sources, journalists often source extension messages from agricultural experts and then they produce that information for farmers. There is no extension program produced by farmers for farmers.

Overall results showed that the communication approach in use in the study areas is a mix of both non-participatory and participatory approaches. Thus, it tends to be integrated approach. However, the integration is mainly not in the sense of adjusting the approach of communication in a given method according to contexts but is largely in the sense that the approach in using some methods is mostly participatory whereas the approach in using other methods is mostly non-participatory.

3.2. Responses regarding communication methods most commonly used

All respondents said that interpersonal, group and mass media methods of communication are used. However, results of FGDs 2–7 and IIs 2–4, 6 and 7 revealed that interpersonal methods of communication are most commonly used over the other methods. They said group methods of communication are the second most commonly used methods. Discussions with the non-sampled farmers and DAs yielded similar results. These respondents stated that this is because the interpersonal approaches:

- bring farmers and DAs face-to-face and thus farmers get the chance to receive individual treatment,
- help avoid domination of individual farmers by others in the communication process and allow individuals to converse more with the DAs or others involved in the communication process,
- allow some sort of social interaction and let farmers feel the human warmth, thus farmers tend to believe stories from human sources rather than from media sources.

In this regard, one of the non-sampled farmers said, “I prefer interpersonal communication because it gives me the chance to ask the DA or researcher on what I didn’t understand and also to evaluate whether the information is customized to my situation and the realities on my plot”.

Results of FGD 1, II 1 and II 6 showed that farmers prefer the group methods of communication, which include demonstrations, field visits, exhibitions, and trainings and orientations. According to these respondents, group methods set the stage for farmers to learn from each other, to raise different issues at a time and learn more in less time, and allow for more interactive discussions. Results of II 6 revealed that agricultural researchers at DZARC prefer the group method as it also allows them reach more people.

Despite the potential of the mass media method of communication to reach large audiences, the respondents stated that, other than radio, the mass media method is the least used and the least preferred method. This might be because, as indicated in the issue of access discussed earlier, the mass media methods such as printed materials and TV are not sufficiently available for farmers and also because printed materials and TV require specific time and place settings to use them.

Results of FGD 7 and II 7 revealed that even the practice of showing mobile screen films and videos on different extension aspects has been terminated for different reasons that include, according to the respondents, lack of professionals at wereda level who can produce films and documentaries for extension purposes. These respondents further indicated that previously production and projection of extension materials such as screen films and videos used to be done by extension communication experts at the MoA, but, following the decentralization of duties and responsibilities, actual extension tasks are today implemented by weredas where there are no such skilled personnel.

Regarding availability of printed materials, results of FGD 6, FGD 7 and II 7 revealed that prototype materials are produced at the MoA level with the intention that each region, zone and wereda customizes the materials in line with its linguistic, cultural, social, and economic realities including availability of inputs and resources. However, the respondents doubted whether regions, zones and weredas are doing that in order to reach the information to farmers. Results of FGDs 1–4 and IIs 1–5 confirmed that farmers do not get printed materials on agricultural extension. Also results of FGD 5 revealed that even DAs get printed materials only seldom and in very few copies. A member of this FGD said, “Many literate farmers request us [DAs] to give them printed extension materials but we don’t get such materials even for ourselves. We have forwarded farmers’ request to the agriculture bureau. The response was ‘there is no budget for producing, duplicating and disseminating printed extension materials’”. The results of II 5 confirmed this finding. On the other hand, results of FGD 8 and II 7 revealed that regions, zones and weredas are responsible for producing or customizing, duplicating and disseminating printed extension materials to farmers.

These results imply that extension messages are not shared with farmers in the required formats and at the required rates. This may eventually fail the extension system as witnessed in the previous extension systems.

3.3. Responses about which radio approach is employed in the communication of extension messages through radio

According to results of FGD 8, extension communication messages for transmission on radio are prepared often using an educational radio approach, sometimes using participatory radio approach and only rarely, i.e. recap of the year programs, in documentary and cultural radio approach. The radio journalist who produces the agricultural radio program “Aude Geter” stated that the educational radio format is chosen mainly because the agricultural programs are designed to teach and provide knowledge and instructions on specific agricultural development issues. He said, “On matters that deserve testimonial witness, we let farmers speak in their voice, and thus it is participatory.” However, he revealed that farmers are not involved in agenda setting and program production.

The emphasis on educational radio approach is related to the roles assigned to radio in earlier theories of communication as diffusion (Waisbord, 2001: [Internet]), when the communication approach was by and large top-down. As Mefalopulos and Kamlongera (2004: 51) indicate, educational radio programs are usually written and prepared by subject matter specialists after having investigated and assessed the issue in question. In this case, there is absence of the news and views of the information users. This implies that the program may not address the needs, priorities and deductive experiences of the farmers, and yet the program is meant for farmers.

This might be due to, as results of FGD 8 pinpointed, the absence of rural or community radios which are operated and managed by the local communities themselves. As Mefalopulos and Kamlongera (2004: 51) indicate, even if educational and documentary and cultural radio approaches allow some degree of people's involvement, it is only with participatory radio, also sometimes known as community radio, that the use of radio for the people and by the people is experienced with full participation. The issues to be discussed and presented in the program are decided by the community with the assistance of a radio producer. Also FAO (1984: 147–148) notes that radio works most successfully at the local level when it is used to communicate local problems, solutions, and activities by using local names, voices, and activities in programming. As an example, FAO (1984: 147–148) mentions that farmers' success stories and other kinds of neighbor-teach-neighbor approaches have been found to work well in raising awareness and interest of the farmers.

3.4. Responses about what radio format is commonly used for extension messages communicated through radio

Results of FGD 8 indicated that extension messages that are communicated through radio are produced in magazine format. This appears an appropriate choice as the magazine format allows the employment of a diversity of production techniques, depending on what is to be discussed. As Mefalopulos and Kamlongera (2004: 52) indicate, this radio format usually contains a number of issues or mini-programs and it can be shaped as a news report or feature; or it can have a number of different elements, such as interviews, music and straight talk. This implies that the format being used allows participation of different people in the different types of issues and approaches—thus, it is conducive for participatory programming. However, as indicated earlier, the radio approach doesn't encourage participation.

3.5. Responses about format of printed material commonly used for communicating extension messages

Results of all FGDs and IIs indicated that, printed materials, even though rare, are produced in combined formats, i.e. both in text and in graphic forms such as drawings, pictures, and photographs. This may enhance the impact of printed materials in communicating extension messages. The choice of this format seems considerate of the roles of newspapers, posters, pamphlets, banners, stickers, billboards and booklets to share information or messages with people and group media such as flipcharts, and picture codes to enhance face-to-face discussion and thereby facilitate the investigation of critical issues and the exchange of knowledge (MoA, 1984: 144; Mefalopulos and Kamlongera, 2004: 60).

Results of FGDs 6 and 7 and II 7 also indicated that the materials are prepared by taking into account culture, educational level, and language of the people. In this regard, members of FGD 1 said, “Except that printed materials are not usually available, we don't face any communication barriers related to our language, culture, and education level. We usually read and comprehend messages shared through the rare printed sources; and if at all we face barriers, DAs and researchers in our locality explain the issue to us in the language we use and pursuant to our culture”. These results suggest the need for reconciliation measures that encourage multi-actor participation.

3.6. Responses about acceptability of the communication approaches by farmers

FGDs 1–5 and IIs 1–6 revealed that farmers like the participatory communication approach which is witnessed mainly in the interpersonal and group communication methods. The respondents said farmers readily accept information communicated face-to-face with DAs, researchers, extension workers, or other farmers because:

- this gives farmers the chance to interactively discuss problems and solutions,
- they develop the feeling that they are considered knowledgeable and active participant and
- they develop trust that DAs, researchers or extension workers are concerned for improving production and productivity of peasant agriculture.

In this regard, a non-sampled DA from Akaki wereda said, “Farmers feel balanced when we [DAs] interactively communicate with them and they most likely accept message communicated with them in interpersonal methods”. He also indicated that this, however, depends on the communication skills and abilities of the DAs commitment, and on their personality. This DA mentioned for example that if a drunkard DA tries to communicate extension messages with farmers, the farmers will not accept the message from this DA.

A farmer from FGD 1 said, “We like the interpersonal communication with DAs, we consider them like our parents or families; we also accept them when they teach us in groups because this gives us the chance to learn from each other”. One non-sampled farmer from Adama wereda and another one from Welmera wereda said they learn a lot from group communication methods such as demonstrations, farmer research groups, model farmers, extension teams, exhibitions, and farmers’ field schools.

Regarding acceptability of the current communication approach in terms of the mass media method of communication, results of FGD 5 pointed out that farmers do not often accept extension message communicated through mass media because of:

- access problem in the case of televised and printed materials,
- attendance problems due to inappropriate timing of programs,
- less interest and less trust to media messages due to lack of farmers' voices in the programs, and
- dependence on DAs for extension information.

In addition, result of II 1 pointed out that farmers prefer interpersonal communication with DAs because they believe that DAs have the chance to know about technologies appropriate to specific agro-ecologies whereas, extension messages through mass media are too general and thus less reliable. This respondent stated:

When DAs or researchers share with us extension messages on interpersonal or group bases, we ask them for clarity if we didn't get something right and then most of us readily accept and use that information. DAs and researchers know our specific problems and solutions. But, in the case of mass media, on the one hand the messages may not be specific to our realities and on the other hand we do not have the chance to ask and understand. Therefore, we readily accept extension message shared through interpersonal and group methods, but largely doubt even the accuracy of extension messages communicated through mass media.

In general, results of FGDs 1–5 and IIs 1–6 indicated that the current communication approach, as expressed in terms of the interpersonal and group communication methods, is accepted by farmers. They pointed out that it is however less accepted in the case of the mass media methods. Also, results of FGD 8 revealed that there are little or no indications regarding acceptability of the approach as expressed in terms of the mass media method of communication. They indicated that no audience research has been conducted regarding acceptability of the approach in terms of the mass method.

3.7. Responses about who decides content of agro-extension messages that are conveyed through the media

Results of FGDs 1–5, 8 and IIs 1–4 and 7 indicated that contents of mass media messages communicated through media are determined mainly by the media people or journalists; farmers and DAs are less involved in deciding on content and that happens only when few farmers have success stories. For example, members of FGD 8 said, “Guided by the annual plan, we decide the content of extension messages transmitted through media. In doing so, however, we get inputs mainly from experts and sometimes from farmers and there are also times when content is shaped by agricultural experts”. Interview results with five non-sampled DAs: three from four other kebeles of Ada'a wereda, one from Akaki wereda and another one from Adama wereda confirmed this. As results of FGDs 6–8 and II 7 revealed,

these journalists are not specialist agricultural journalists. This result confirms that extension communication through the mass media method follows mainly a top-down approach.

This implies that farmers are not given enough space to talk about their problems, solutions and successes; programming is mainly supply-driven with little consideration of the demand side. The finding appears to be in line with Nwosu's (1995b: 436, 345–349) statements that one of the major constraints to agricultural productivity in Africa in general derives from a weak extension system—a pure communication problem that rests in the undue concentration on source-side or supply-side issues to the disregard of demand-side considerations. This suggests the need for a need-based and participatory agricultural communication strategy and liberal and pluralistic media both in terms of ownership and operation.

4. Participation and linkage

4.1. Responses about farmers' participation in extension communication

All FGDs and IIs revealed that farmers participate in agricultural extension through farmer-to-DA/researcher, farmer-to-farmer, farmer-to-journalist, and farmer-to-mass audience communications, and through practical methods such as demonstrations, field visits, and experience sharing tours. As indicated earlier, farmers participate more in interpersonal approaches followed by the group communication approaches. FGDs 1–8 and IIs 1–7 showed that even if farmer participation in mediated extension communication is minimal, farmers participate in forms of interview, live testimonial communications and some feature stories. In this regard, II 1 revealed that journalists sometimes talk to farmers but the content to be communicated is decided by the journalists. One non-sampled DA from Adama wereda stated that journalists sometimes involve both the DAs and farmers in the communication process as informants. For example, a model farmer from Welmera wereda pointed out that he shares his experience with other farmers through discussions with extension teams, demonstrations, farmer participatory research extension teams and through radio and TV as well.

These results suggest that farmers directly participate in extension communication in interpersonal and group methods, but have some participation which is again indirect participation in the mediated communication. This necessitates the need to increase the current trends in interpersonal and group methods of extension communication while instituting measures that would avail farmers the chance to communicate via electronic media.

4.2. Responses about roles of DAs, extension workers, and researchers in the communication process

Results of FGDs 1–5 and IIs 1–6 indicated that DAs, extension workers, and researchers act as collaborators, participants, risk-takers and activists rather than assuming themselves to be experts, benefactors and non-participants. A member of FGD 1 said, "There is neither teacher alone nor student alone; we all including DAs and researchers are students at one instance but also teachers at another instance. So, we don't consider DAs as our supervisors, neither do they consider us their subordinates; we learn from each other and the DAs even strive to make us feel balanced". Results of II 6 consolidate this finding. The informant indicated that the time when researchers used to do research sitting in their offices is almost gone because that didn't bring any tangible results of scale in the past 50 years. According to him, today researchers have started working with farmer research groups starting from problem identification to researching, testing of results, variety selection, and related activities". The group members noted that this is, however, a recent trend and that the experience in the past was different. Concerning the roles of researchers, one non-sampled farmer from Dugda Bora wereda, who was one of the awardees on an agricultural fair, stated that agriculture is not a new activity to any Ethiopian farmer and remarked, "But agriculture becomes productive when it is backed by researchers' efforts". In explaining the basis of his quoted statement, this farmer said that he was so poor when he was advised by the former Manager of Melkassa Agricultural Research Center now De'etat Minister of the MoA six years back to use agricultural technologies. This farmer indicated that, through continuous communication with and support from researchers, he benefited a lot from the sector and is now one of the rich people, running a commercial cotton farm of his own and driving his own Pajero.

Discussions/or interviews with five non-sampled DAs, i.e., four from other kebeles of Ada'a wereda and one from Akaki wereda confirmed this result. Again one non-sampled farmer from Adama wereda and another one from Welmera wereda witnessed the same result. These farmers said that DAs communicatively assist them throughout the agricultural processes from land preparation to searching markets to their produces.

As Melkote and Steeves (2001: 352) indicate, this is the role of DAs and extension workers in the contemporary scene of participatory development communication. From this, we can deduce that DAs, extension workers, and researchers have been aware of the fact that, as Servaes and Malikhao point out, "The perspective on communication has changed. The

emphasis now is more on the process of communication (that is the exchange of meaning) and on the significance of this process (that is the social relationships created by communication and the social institutions and context which result from such relationships)” (2005: 23). This is because the focus on the dissemination of information and technical package from experts to farmers does not yield the expected results (Bessette, 2004 [Internet]).

4.3. Responses about whether the current extension communication approaches encourage linkages among research, extension, and farmers

Theoretically, the current extension strategy advocates strong linkages and integration among agricultural research, extension and farmers. Respondents in FGD 6, FGD 7 and II 7 expressed their doubt on whether the extension communication encourages practical linkage in the study areas.

Results of FGD 1, II 1 and II 6 indicated that the extension communication encourages practical linkage among agricultural research, extension and farmers. The respondent who gave II 1 stated, “We share extension information both from the research and the extension wings. Sometimes, DAs and researchers come together to our fields and we altogether discuss about our problems, solutions of problems, failures and successes.”

According to results of FGD 4, the extension communication encourages linkage between research and farmers, usually model farmers. Responses of two non-sampled DAs, one from Akaki wereda and another one from Adama wereda, and one non-sampled model farmer from Welmera wereda, conformed to this finding. In this regard, the non-sampled DA from Adama wereda said, “The extension communication encourages practical linkage among the research, extension and farmers. We [DAs] get inputs from extension, from the research and also from innovative farmers and then share that input with the wider peasant farmers. Again we take feedback from farmers and communicate it with researchers and staff with the extension structure”. The non-sampled DA from Akaki wereda shared this response.

Whereas, results of FGD 2, FGD 3, FGD 5 and II 5 revealed that the extension communication encourages practical linkage between extension and farmers but not among the three wings of the sector. According to the result of II 5, the Wereda Agriculture Bureau usually communicates with zonal and regional bureaus of agriculture but seldom with the research wing. Results of FGD 5 and three non-sampled DAs from Ada'a wereda triangulated

this response. According to these results, sample DAs do not know even what communication resources are available with DZARC.

Overall results revealed that the communication approach better encourages extension-farmer and research-farmer linkages but that it does not as such synchronize research, extension and farmers linkages. These disparities in responses suggest that even if there might be efforts to shape extension communication in such a way that it encourages linkages among research, extension and farmers, efforts in this regard are inadequate. This was reflected in responses of some of the DAs and farmers who said they get extension messages mainly from researchers while some others said they get such information from the Wereda Agriculture Bureau. Only very few of the respondents said extension messages and feedbacks are exchanged among farmers, the Agriculture Bureau and researchers. This implies that even if the communication approach tends to be participatory, it does not often bring the different actors together to share their news and views.

4.3. Responses about the major sources of extension information to the different parties

According to results of FGD 1, II 1 and II 6, farmers get extension communication messages both from researchers and from DAs. FGD 4 and II 4 showed that farmers get extension information mainly from researchers, whereas, results of FGD 2, FGD 3, FGD 5 and II 5 indicated that farmers get extension messages from DAs and extension workers.

Results of FGDs 1–5 and IIs 1–5 revealed that DAs obtain extension information mainly from the Wereda Agriculture Bureau, and also from DZARC. These respondents also indicated that DAs also learn from farmers' accumulated IK. According to FGDs 1–5, 8 and IIs 1–7, journalists get information from researchers, experts at wereda level, DAs and farmers.

These results imply that extension information is available from different sources. While this may increase farmers' access to extension information, as indicated earlier, the weakness of the linkage among the different components of the agricultural system may create information gaps and thus the different sources may share different information on the same issue. This necessitates that while building on positive experiences in the sharing of information, mechanisms should be devised to facilitate the linkage among all parties involved in the sector.

4.4. Responses about whether the communication approach encourages women's participation in the extension system

Almost all the respondents said that the communication approach in use now encourages women's participation in use of agricultural technologies and in the extension communication. In this regard, the non-sampled female DA from Adama wereda pointed out that previous extension communication strategies and approaches excluded women. But now, according to this DA, women are encouraged to use agricultural technologies and also to participate in demonstrations, trainings, experience sharing and other aspects of extension communication. FGD 1, FGD 5, II 1 and II 6 mentioned as an example that the current approach strongly encourages women participation in agricultural sub-sectors such as horticulture, beekeeping, poultry, dairy, and silk production in the belief that women can run these businesses while they are still around home for other domestic responsibilities like taking care of children, cooking, etc. These respondents also indicated that women participation is however still low and suggested that more should be done to meaningfully involve women in efforts to increase agricultural production and productivity. As examples of the focus of the mass media method on triggering participation of women in development, results of FGD 8 mentioned the weekly 'Kesetoch Admas', meaning 'From Horizons of Women' program of Ethiopian Television and the weekly 'Kesetoch Medrek', meaning 'Women's Forum' program of Ethiopian Radio.

This result implies that the communication approach has a promising start with regard to involving women in development activities as this lays one of the foundations for attaining sustainable development. Probably, it has recognized that:

First, men and women have different roles in production; their knowledge of their environment is...different and it is important to learn both systems. Second, women and men work from different resource bases and face different constraints; so knowledge produced and used by, say, men in one area may not be useful for women in the same area or for women who fill the same approximate role but in another area. Simply stated, men and women may have different knowledge about the same things, they may have knowledge about different things, they may organize knowledge differently, and they may preserve and transfer their knowledge differently (Awa, 1989: 2 cited in Awa, 1996: 141–142).

5. Medium/language of communication, contexts and barriers

5.1. Responses related to the language of communication

Results of FGDs 1–5 and IIs 1–6 indicated that farmers, researchers, DAs and agricultural experts share/exchange extension messages both in Oromiffa, which is the official language of Oromia Region wherein Ada'a wereda is found, and also in Amharic, the national official language. According to the results of FGD 8, extension messages communicated through mass media methods are shared in Oromiffa, Amharic, Tigrigna, Somaligna, Afarigna, and English as well. This shows that even if the communication should have been in more languages, as there is tremendous linguistic diversity in the country, the communication in the study areas is in the languages the local people use.

5.2. Responses about whether extension messages communicated by media are in line with social, cultural, and linguistic values of the people in the study areas

All informants said that there is no social, cultural or linguistic barrier to extension communication in the study areas. According to the informants, this is because most of the people involved in extension communication in the study areas use languages which farmers use, and share the same social and cultural values with farmers. This can be considered as a good input to exercise participatory development communication by involving people at different levels. In this regard, also results of FGD 6, FGD 7 AND II 7 supported the principle that communicating in the language of the farmer has far reaching precedence on success or failure of extension efforts. These respondents also indicated that one of the objectives of decentralization of administration and operation of extension communication is to be able to create scenarios in which farmers, DAs, researchers, and agricultural experts can speak the same language.

6. General

6.1. Responses about major attributes of the current communication approach in terms of:

- *equality of the distribution of social & economic benefits,*
- *popular participation in development planning and execution,*
- *emphasis on local resources,*
- *focus on development as a making from within, and*
- *integration of traditional with modern.*

Results of FGDs 1–5 and IIs 1–4 showed that although DAs and researchers attempt to reach extension messages to all farmers, at present model farmers and some progressive farmers enjoy much of the social and economic benefits from extension communication. A non-sampled model farmer from Welmera wereda justified this. He said, “Thanks to researchers and DAs who continually share me extension messages, I am both economically and socially better off than farmers who don’t use extension services and messages”. Participants in IIs 5 and 6 also stated that even if the communication approach encourages distribution of the social and economic benefits of extension communication equally among all farmers, currently, model farmers, progressive farmers, contact farmers and farmer research groups reap much benefit while other farmers are benefiting only little. This result shows that one of the principles of development communication, which is equity in the distribution of resources and benefits, is not met. This is because, as the results of FGD 5 and II 6 revealed, some farmers adopt agricultural technologies earlier than other farmers; they readily accept and seek for extension messages from DAs, researchers and extension workers. According to adopter classifications of Rogers (2003: 282), these farmers are considered innovators who:

- are out of local peer networks and prefer cosmopolite social relationships, i.e. relationships outside the local social system,
- prefer communication patterns and friendship among a clique of innovators,
- control substantial financial resources in absorbing the possible losses from unprofitable innovations
- have the ability to understand and apply complex technical knowledge.

Regarding popular participation, respondents stated that many farmers who use extension packages participate in planning and execution of agricultural development activities. In this connection, results of FGD 5 and II 6 indicated that DAs and researchers involve farmers in problem identification, planning and execution of activities and even in evaluation of outputs. But again, all respondents said currently, model farmers, progressive farmers, contact farmers and farmer research groups participate more than other farmers. This may be because, as FGDs 1–5 and IIs 1–6 indicated, most of the model farmers, progressive farmers, contact farmers and farmer research groups in the study areas have got at least primary level formal education and some of them have attended high school education. And level of education has a direct bearing on communicative behavior and adoption decisions of individuals.

Results of IIs 5 and 6 indicated that the current communication approach favors the use of local resources in agricultural development. This appeared to be in conformity with the ADLI strategy which advocates the use of local resources such as labor, land, water, etc. FGD 6, FGD 7 and II 7 mentioned this policy direction. However, results of FGDs 1–5 and IIs 1–4 revealed that the extension system also supports the use of imported inputs such as chemical fertilizer which is shooting up in price. These respondents and two non-sampled farmers from Welmera and Siraro weredas said that the high cost of fertilizer distances many farmers from the extension services.

All respondents shared that agricultural development can be effected from within with cooperation, facilitation and supportive roles from all concerned parties. Again all respondents indicated that since recent times the communication approach encourages integration of traditional knowledge with scientific knowledge.

In general, the current communication approach meets some of those attributes which Moemeka (1994: 14) identified as features of participatory development communication. However, it only slightly touches upon some of the attributes. This implies that extension communication is on a shift from the traditional top-down approach to the contemporary participatory approach.

6.2. Responses about the level of emphasis given to development journalism in general and to extension communication in particular

According to results of FGDs 5–8 and IIs 5–7, not much attention has been given to the development of development journalism in the country. For example, as results of FGD 8 indicated, given Ethiopia's being a multi-language setting on the one hand and limitedness of radio stations and broadcasting and publishing languages on the other hand, there are problems of reaching speakers of different languages. The informants suggested community radio stations could be a good solution, but this has remained difficult in Ethiopia's case. As indicated earlier, this might be one of the limiting factors to making mediated extension communication participatory.

CHAPTER FIVE: SUMMARY OF FINDINGS AND RECOMMENDATION

Introduction

There is a widely held complaint among the public that agricultural extension efforts exerted over the last fifty years have not registered any meaningful improvements in the production and productivity of the sector. This has been accounted, among other factors, for faulty and inadequate communication approaches along the research-extension-farmer continuum. Cognizant of that, this study attempted to examine approaches and acceptability by farmers of development communication for agricultural development in Ude, Ankaka, Wajjitu and Tedicha kebeles of Ada'a wereda, Central Ethiopia.

The study was conducted by collecting qualitative data from sample farmers in the four kebeles, DAs serving these kebeles, Agricultural Extension Research Coordinator of DZARC, Agricultural Extension Team Leader of the Ada'a Wereda Agriculture Bureau, Public Relation and Extension Communication Experts of MoA, and three journalists who produce agricultural programs for Ethiopian Radio, Ethiopian Television, and Ethiopian Press. Different sets of discussion and/or interview guide questions were used. The data generated was presented and interpreted in the previous chapter of this paper. The following section presents summary of the major findings of the study and the last section of this chapter contains recommendations.

Summary of findings

1. It was found out that farmers in the study areas have access to radio sets. But, the use of radio as a channel to share and exchange agricultural extension messages is limited due to:
 - inappropriate timing of programs against farmers' work calendar,
 - lack of farmers' direct participation in radio programs,
 - mistrust of farmers to extension messages communicated through mass media,
 - generality of extension messages communicated through mass media,
 - low interest and inattentiveness of some farmers to extension messages communicated through mass media.

Farmers have little or no access to television and printed materials. Despite the high demand for and interest in messages shared through TV and printed materials probably because these media provide a range of options like audio-visual integration and permanence, these channels are not at present accessible to farmers. It was noted that even DAs do not get appropriate printed materials such as brochures, magazines, newspapers, etc from the Wereda Agriculture Bureau and DZARC.

2. Experts recognized the importance of appropriate extension communication approaches for the success of agricultural extension.

3. Respondents conformed to the advice of UNESCO (1975) cited in Moemeka (1994b: 14)

which states that, if DEVELOPMENT COMMUNICATION is to contribute effectively to development, it should:

- identify the needs of the people and provide citizens sufficient access to the communication systems,
- provide horizontal and vertical (interactive) communication linkage at all levels of society and communication channels,
- support local communities for cultural preservation and provide local media, such as community radio, to serve as effective channels,
- provide relevant information, and raise people's awareness of development projects and opportunities.

In addition, it was recognized that development communication in agricultural extension should also promote means that allow the supply of inputs with reasonable prices to the farmer.

4. The communication approach in use now in agricultural extension efforts was identified as participatory in the case of interpersonal and group communication methods, but mainly top-down in the case of mass media communication methods. The reasons for choosing the participatory approach were partly in conformation with the assertions of the Ninth United Nations Inter-Agency Roundtable on Communication for Development (FAO, 2005: 8), which read:

- Communication for Development is about people, who are the drivers of their own development.
- Communication for Development contributes to sustainable change for the benefit of the poorest.
- Communication for Development is a two-way process—it is about people coming together to identify problems, agree on visions for desirable futures, create solutions and empower the poorest.
- Participatory Communication for Development does not only apply to work with communities. It is an approach of importance to all stakeholders.
- Communication for development is about the co-creation and sharing of knowledge.

- Communication for development respects indigenous knowledge and culture; local context is key.
- Communication for Development is critical to the success of the Millennium Development Goals (FAO, 2005: 8).

The most likely reason for this was indicated to be absence of alternative broadcast stations such as rural community radio stations by which farmers can actively share and exchange a number of issues about agricultural development. In general, the communication approach is a combination of participatory and top-down approaches; one method is used in participatory approach while the other is used in top-down approach.

5. Most farmers prefer interpersonal methods of communication to group and mass media methods. Still many other farmers prefer group methods to interpersonal and mass media methods. Farmers have the least preference to mass media methods for communicating extension messages. The preference for interpersonal methods is because they allow farmers to receive individual support from DAs and researchers, participate actively with DAs and researchers in extension activities, and feel belongingness to the extension system. On the other hand, the preference for group methods was made because group methods provide the chance to learn from each other and also because group methods create a sense of competition among farmers. The mass media method is the least preferred owing to:

- limitedness of access to farmers,
- inappropriate timing of programs
- lack of farmers' direct participation in programs,
- mistrust of farmers to extension messages communicated through mass media, and
- generality of extension messages communicated through mass media,

6. The most commonly used radio approach for extension messages communicated through radio is the educational radio approach, and the format is magazine format. Thus, the top-down nature of messages shared through radio can also be due to the approach chosen. Whereas, the radio format is conducive for participatory programming of extension messages; thus, if the approach is retuned to participatory approach, farmers' participation in extension communication can be increased.

7. The only few printed materials produced for use by DAs and farmers are produced in a combined format, i.e. combination of text and graphics. This implies that if printed materials are produced and distributed adequately in this format, it would be possible to share more extension messages with increased impact.
8. Regarding participation of farmers in extension communication, it was found that most farmers, especially model farmers and farmer research groups, participate in the different stages/levels of interpersonal and group communications. Most of these farmers are farmers who have got some formal education and who more readily adopt innovations and actively participate in extension communication than do illiterate farmers. In contrast, contents of extension messages communicated through mass media are decided by journalists. Journalists, of course, mostly take inputs from agricultural experts and sometimes from farmers. Thus, farmer participation is almost indirect.
9. As most of the people involved in the extension system communicate with farmers in the languages farmers use, the development communication approach in use in agricultural extension in the study areas is not much affected by linguistic, cultural or social barriers.
10. It is also identified as gender sensitive. It was found that the extension communication encourages women's participation in the extension system, especially in using and promoting technologies such as sericulture, beekeeping, poultry, and horticulture.
11. Researchers, DAs and extension workers these days act as collaborators, participants, risk-takers and activists rather than assuming themselves as an expert, benefactor and non-participant.
12. The current approach of communication for agricultural development in the study areas, as expressed in terms of interpersonal and group communication methods, is accepted by farmers. Whereas, even though this result is not supported by wider audience research, the communication approach as expressed in terms of mass media methods is less accepted by farmers.

12. The approach encourages farmer-to-extension, farmer-to-farmer and farmer-to-research linkages, but it didn't adequately encourage research-extension-farmer linkages.

Suggested solutions

The results of this study suggest that in order to increase acceptability of extension messages that are shared or exchanged with farmers and thereby contribute to effecting agricultural development, the following needs to be implemented:

- ☞ Building on the positive aspects of interpersonal and group communication methods.
- ☞ Improving farmers' access to printed materials and television.
- ☞ Adjusting the timing of transmission of extension messages communicated on radio and TV based on farmers' work calendars.
- ☞ Involving farmers directly and adequately in the extension communication process.
- ☞ Allowing and facilitating establishment and operation of rural community radio stations that would most readily allow active participation of farmers in the different localities in the mediated extension communication process.
- ☞ Ensuring that the communication approach encourages harmonization among the research-extension-farmer dimensions of agriculture.
- ☞ Ensuring that the communication approach encourages participation of women and different members of the rural community in the extension system.
- ☞ Assessing the impact of the communication approach in facilitating agricultural extension and in speeding up agricultural development in general.
- ☞ And above all, designing national communication strategy in which the importance and operation of development communication for agricultural development are clearly articulated.

End notes

¹As the Ministry of Agriculture of the Federal Democratic Republic of Ethiopia (FDRE) states, the agricultural sector is dominated by small-scale resource-poor farmers who produce 90–95 percent of all cereals, pulses and oil seeds (MoA, 1996: 1).

²ARDU was a continuation of the then CADU (Chilalo Agricultural Development Unit), the landmark of the involvement of the then Imperial government in agricultural extension initiatives as a component of the Third Five Year Plan (1968–1972). CADU emerged as a formal agro-extension intervention in Chilalo area of the then Arsi province following the agreement between the Ethiopian and the Swedish governments of the time (Michael, 1999: 23–24; Belay, 2003: 27).

³‘Wereda’ an Amharic term for ‘district’. It is the second basic administrative entity under the current political system. The order goes: kebele, wereda, zone, region, country.

⁴Melkote and Steeves (2001: 374–378) clearly sketch that development and development communication theories started with the beginning of Organized Development Assistance (ODA) that was followed by the birth of Multilateral Development Assistance (MDA) institutions such as the International Monetary Fund (IMF), the World Bank, and the United Nations family of specialized agencies in 1945, i.e. the same year when the UN replaced the League of Nations. [These agencies and institutions were allowed to enter the poorer countries and provide aid and the know-how to achieve modernization. Mass communication was used to diffuse the know-how (Kumar, 1994: 77) and this was the beginning of DEVELOPMENT COMMUNICATION as innovation diffusion (Masilela, 1996: 97)]. This was followed by the emergence of Bilateral Development Assistance (BDA) programs such as President Truman’s Point Four Program in 1949. In the 1950s, the notion of development of emerging LDCs came to existence following the liberation of many countries from colonizers. Melkote and Steeves (2001: 374–378) identify:

- the 1960s as First Decade of Development when modernization was the dominant paradigm of development,
- the 1970s as Second Decade of Development when critiques of the dominant paradigm led to the emergence of Alternative Conceptions of Development.
- the 1980s as Third/Last Decade of Development when global recession in most industrialized countries was followed by adoption of Structural Adjustment Policy (SAP) by lending agencies.
- the 1990s and beyond as a period characterized with different features such as focus on participatory approaches in communication and development.

⁵The economic development theories since World War II are identified as:

1. Modernization, neo-classical economic theory promoting and supporting capitalist economic development (Melkote and Steeves, 2001: 34), from around 1960 to 1965, supported the transfer of technology and the sociopolitical culture of developed societies to LDCs.

2. Dependency theory was widely accepted among scholars as a relevant framework for analyzing international relations from the mid-1960s to the early 1980s.

3. Multiplicity and Another Development emerging since 1980s and which is gaining ground in academic circles (Melkote, 1991 and White, Nair and Ascroft, 1994 both cited in Servaes, 1999:17–18).

⁶ The *modernization theory*, dominant in academics from around 1960, when Walt Rostow's seminal work *The stages of economic growth* was published, to 1965, supported the transfer of technology and the sociopolitical culture of developed societies to 'traditional' or 'underdeveloped' societies. The *dependency theory* was widely accepted as a relevant framework for analyzing international relations from the mid-1960s to the early 1980s. Since then, the emerging *multiplicity and another development* is gaining importance in academic scenes (Melkote, 1991 and White, Nair and Ascroft, 1994 cited in Servaes, 1999: 17–18).

⁷ These biases constitute one of the criticisms of diffusion research. Pro-innovation bias is "the implication in diffusion research that an innovation should be diffused more rapidly, and that the innovation should be neither re-invented nor rejected" (Rogers, 2003: 106). Pro-mass media bias refers to the thinking that mass media are a panacea to create widespread awareness of, and interest in innovations espoused by aid agencies (Melkote and Steeves, 2001: 58).

⁸ Pro-individual-blame bias is the tendency to hold individuals responsible for their problems, rather than the system of which they are a part (Rogers, 2003:118–119).

⁹ The hypodermic needle approach, developed by Berlo (1960), postulated that the mass media in the 1940s and 1950s had direct, immediate, and powerful effects on a mass audience. The approach was too simple, too mechanistic, and too gross to give an accurate account of media effects (Rogers, 2003: 303). The hypodermic needle was also known as bullet theory by Schramm (1971) and stimulus-response theory by DeFleur and Ball-RoKeach (1975)) (Melkote and Steeves, 2001: 106).

¹⁰ The bullet theory and stimulus-response theory are the other names of the hypodermic needle frame of mass communication effects (Melkote and Steeves, 2001: 105–6). Melkote and Steeves trace out that the hypodermic needle (Berlo, 1960) approach of mass communication effects emerged based on Freudian theory which assumes that human behavior is essentially irrational.

¹¹ Dr. Daniel Lerner is a prominent writer in the area of Development Communication who authored the book *The Passing of Traditional Society* (1958), which is considered a milestone for the study of communication in national development (Chu, 1994: 36).

¹² The *two-step flow hypothesis* suggests that in the first step, communication message/information is transferred from the source via mass media to opinion leaders who in turn, in the second step, transfer it to the 'less active section of the population' through interpersonal influence (Lazarsfeld *et al.*, 1944: 151 cited in Rogers, 2003: 304).

¹³According to Rogers (2003: 283), early adopters are people who are a more integrated part of the local social system and who have the highest degree of opinion leadership in most systems. Rogers (2003: 282–285) classifies adopter into five categories: 1) innovators—interested in new ideas and are very communicative, 2) early adopters—‘the individuals to check with’ for successful discrete use of new ideas, 3) early majority—who adopt new ideas just before the average member of a system, 4) late majority—skeptical who adopt new ideas after the average member of a system, and 5) laggards—who are the last in a social system to adopt an innovation.

¹⁴According to Rogers (2003: 20), any innovation-decision passes through five stages: 1) knowledge, 2) persuasion, 3) decision, 4) implementation, and 5) confirmation

¹⁵Tehrani (2002: 53) identifies three kinds of development communication strategies taking into account the fundamental options that have historically faced the LDCs in relation to the world system. These strategies are:

1. *assimilation*, which means opening doors to economic, political and cultural influences of the outside world, i.e. simulation in the dominant world system,
2. *dissociation*, which means closing doors to any external influence, and
3. *selective participation*, which refer to ‘pick and choose’, i.e. selective participation.

← Formatert: Punktmerking og nummerering

¹⁶Empathy is the degree to which individuals can put themselves into the role of another person (Rogers, 2003: 376) and this allows individuals on interpersonal communication to learn about loopholes or barriers between the communicating parties.

¹⁷The Internet is technically considered as causative of 'digital divide', the gap between 'technology haves' and 'technology have-nots' in access to and use of the new electronic networks of information (Castells, 1998: ?). Castells (1998: ?) further states that while the increased globalization of the planet due to increased deterritorialization (Cohen, 2000: 79) is becoming traditional, the IT have-nots are being marginalized.

¹⁸The Point Four Programe was a Bilateral Development Assistance (BDA) program designed in 1949 by President Truman to effect modernization in LDCs (Melkote and Steeves, 2001: 374). Also remember from our discussion in the previous sector that the communication approach used when BDAs and multi lateral support institutions were in swing with the intent to effect modernization in the LDCs was purely top-down, i.e. diffission

¹⁹Sasakawa Global 2000 is a development project initiated in Ethiopia in 1993 by the Sasakawa Africa Association and Global 2000 of the Carter Center (Getinet *et al.*, 1996: 95).

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Annexes

Annex 1. List of respondents

NO.	Re spondents	Address/institution & responsibility
1	Sampled respondents	
1.1	Farmers	Kebele
	1. Ato Jidda Guda	
	2. Ato Mengistu Urge	
	3. Ato Engida Kelkile*	Ude
	4. Ato Abu Taye	
	5. Sergeant Mitiku Mamo	
	6. Ato Deresse Jaleta	
	7. Ato Alemu Jido	
	8. W/ro Meselech Negeri*	
	9. Ato Dereje Wodajo	Ankaka
	10. Ato Demere Wake	
	11. W/ro Abebech Gutema	
	12. Ato Tolosa Beyene	
	13. Ato Yalew Negasi	
	14. Ato Wako Ararsa*	
	15. Ato Aman Negem	Tedicha
	16. Ato Guta Sado	
	17. W/ro Gete Biru	
	18. Ato Wakgari Geletu	
	19. Ato Girma Debele	
	20. Ato Mengistu Belete	
	21. W/ro Demekech Tafa	Wajitu
	22. Ato Dugma Jidda	
	23. Ato Sisay Mamo	
	24. Ato Tezera Getu*	

1.2	<i>Development agents</i>	<i>Kebele</i>
	1. Ato Engidashet Abdu	Ude
	2. W/ro Asnakech Tufa	Tedicha
	3. Ato Alemu Uge	Wajitu
	4. Ato Ketema Shiferaw	Ankaka
1.3	<i>Experts</i>	<i>Institution and responsibility</i>
	1. Ato Kebede Tulu*	Ada'a Agric. Bureau Extension Team Leader
	2. Ato Sherif Aliy*	Extension Research Coordinator, DZARC
	3. Ato Zinabu Kebede	Senior PR Expert, MoA
	4. Ato Netsanet Tesfaye	Senior PR Expert, MoA
	5. Ato Mehamed Tiye	Senior PR Expert, MoA
	6. Ato Fisseha Teshome	Senior Extension Communication Expert, MoA
	7. Ato Kebede Gillette*	Senior Extension Communication Expert, MoA
	8. Ato Zewdu Belete	Extension Communication Unit Head, MoA
	9. Ato Asfaw Fekade	ETV journalist
	10. Ato Haile-Amlak Kassaye	Ethiopian Radio journalist, Aude Geter producer
	11. W/ro Simiret Demere	Addis Zemen journalist, Aude Mirmir producer
2	<i>Non-sampled respondents</i>	<i>Kebele/wereda</i>
2.1	<i>Farmers</i>	
	1. W/ro Faitundie Dube	Welmera wereda
	2. Ato Gudissa Haile	Welmera wereda
	3. W/ro Jemila Ismael	Siraro wereda (West Arsi)
	4. Ato Kaleab Tesfa	Dugda Bora wereda
2.2	<i>Development agents</i>	<i>Kebele/wereda</i>
	1. W/rt Meskerem Shibru	Dire Shiki, Ada'a Ada'a wereda
	2. Ato Addisu Abebe	Tuli Gintu, Ada'a Ada'a wereda
	3. Ato Demisu Lemma	Hidi kebele Ada'a wereda
	4. W/rt Aregash Mekonen	Adama wereda
	5. Ato Abera Guda	Akaki wereda

* In-depth interviewees

Annex 2a. Guide questions for the FGD with peasant farmers

1. Biographical information, access

2. Kebele, level of education, age, marital status?

2. Access and use

3. Do you have access to communication media and channels, such as radio, TV, and print media?
4. Which programs/columns do you attend often?
5. How do you obtain information about agricultural technologies?

3. Roles and commended activities of DEVELOPMENT COMMUNICATION

6. What roles do you think communication plays in efforts to increase production and productivity of agriculture?
7. What specific communication activities should people involved in different communication tasks accomplish to enable communication contribute effectively to increasing production and productivity of agriculture?

4. Communication approaches, program formats, acceptability of approaches

8. There are different communication approaches. These are top-down, participatory or interactive, and integrated approaches. Which approaches are common when you communicate with DAs and extension workers?
9. Why?
10. Which communication methods are commonly used when you communicate with DAs and extension workers?
 - i. Interpersonal methods
 - ii. Group methods such as demonstrations, farmers' days, educational visits, etc
 - iii. Mass media methods such as radio, TV, newspapers, flyers,
11. Which of these methods do you prefer most?
12. Why?
13. In what format do you prefer the print media?
 1. Text
 2. Visual materials; drawings, pictures, photographs

3. Combined print materials
 4. Visual discussion tools; picture codes, flipcharts
14. Do you accept/like the communication approaches being employed?

5. Participation and linkage

15. Do journalists consult you when they produce agricultural extension messages that are conveyed through the media?
16. Do you participate in agenda setting, production, and presenting extension messages to be communicated with farmers?
- i. If yes, in which activities?
 - ii. Why?
 - iii. If no, why?
17. What is the role of the change agents, extension workers, and journalists in the communication process?
1. as expert, benefactor, non-participant
 2. collaborator, facilitator, participant, risk-taker, activist
18. Are extension messages communicated gender-sensitive?
19. Do extension messages communicated with you encourage links among the research, extension, and farmers?
20. If yes, how?
21. What/who are your major sources of extension information?

6. Language, barriers and contexts

22. Do you face problems in producing extension messages?
23. If yes, what are those?
24. How do you think could those problems be solved?
25. Are extension messages communicated you in line with the social, cultural, and linguistic values of a specific locality?

7. General

26. What are the major qualities/attributes of the current communication approach/es in terms of:
1. equality of the distribution of social & economic benefits,
 2. popular participation in development planning and execution,

3. emphasis on local resources,
4. focus on development as happening locally, integration of traditional with modern (Moemeka 1994:14).

Annex 2b. Guiding questions for the FGD with DAs

1. Biographical information, access

1. Kebele, level of education, age, marital status?

2. Access and use

2. Do you have access to communication media and channels, such as radio, TV, and print media?
3. Which programs/columns do you attend often?

3. Roles and commended activities of DEVELOPMENT COMMUNICATION

4. What roles do you think communication plays in efforts to increase production and productivity of agriculture?
5. What specific communication activities should people involved in different communication tasks accomplish to enable communication contribute effectively to increasing production and productivity of agriculture?

4. Communication approaches, program formats, acceptability of approaches

6. There are different communication approaches. These are top-down, participatory or interactive, and integrated approaches. Which approaches are common when you communicate with farmers?
7. Why?
8. Which communication methods are commonly used when you communicate with farmers?
 - i. Interpersonal methods
 - ii. Group methods such as demonstrations, farmers' days, educational visits,
 - iii. Mass media methods such as radio, TV, newspapers, flyers,
9. Which of these methods do farmers prefer most?
10. Why?
11. In what format do they prefer the print media?
 - i. Text
 - ii. Visual materials; drawings, pictures, photographs

- iii. Combined print materials
 - iv. Visual discussion tools; picture codes, flipcharts
12. Do farmers accept/like the communication approaches being employed?

5. Participation and linkage

13. Who decides on content of agro-extension messages?
14. Do journalists consult you when they produce agricultural extension messages that are conveyed through the media?
15. Do you participate in agenda setting, production, and presenting extension messages to be communicated with farmers?
- i. If yes, in which activities?
 - ii. Why?
 - iii. If no, why?
16. What is your role in the communication process?
- i. as expert, benefactor, non-participant?
 - ii. collaborator, facilitator, participant, risk-taker, activist?
17. Are extension messages gender-sensitive?
18. Do extension messages you communicate with farmers encourage links among the research, extension, and farmers?
19. If yes, how?
20. What/who are your major sources of extension information?

6. Language, barriers and contexts

21. Do you face problems in communicating extension messages with farmers?
22. If yes, what are those problems?
23. How do you think could those problems be solved?
24. Are extension messages you communicate with farmers in line with the social, cultural, and linguistic values of the local people?

7. General

25. What are the major qualities/attributes of the current communication approach/es in terms of:
- i. equality of the distribution of social & economic benefits,
 - ii. popular participation in development planning and execution,

- iii. emphasis on local resources,
- iv. focus on development as happening locally, integration of traditional with modern (Moemeka 1994:14).

Annex 2c. Guide questions for the FGD with MoA PR Experts

1. Biographical information, access

1. Kebele, level of education, age, marital status?

3. Roles and commended activities of DEVELOPMENT COMMUNICATION

2. What roles do you think communication plays in efforts to increase production and productivity of agriculture?
3. What specific communication activities should people involved in different communication tasks accomplish to enable communication contribute effectively to increasing production and productivity of agriculture?

4. Communication approaches, program formats, acceptability of approaches

4. There are different communication approaches. These are top-down, participatory or interactive, and integrated approaches. Which of these approaches are common in the current extension communication system?
5. Why?
6. Which communication methods are most preferred in the current extension communication system?
 - i. Interpersonal methods
 - ii. Group methods such as demonstrations, farmers' days, educational visits, etc
 - iii. Mass media methods such as radio, TV, newspapers, flyers,
7. In what format are printed materials recommended in the current extension communication system?
 - i. Text
 - ii. Visual materials; drawings, pictures, photographs
 - iii. Combined print materials
 - iv. Visual discussion tools; picture codes, flipcharts
8. Is there any study, like audience research, conducted to learn about acceptability of the communication approaches being employed?

5. Participation and linkage

9. Who decides on content of agro-extension messages to be communicated with farmers?
10. Do journalists consult you when they produce agricultural extension messages that are communicated with farmers through the media?
11. Do you participate in agenda setting, production, and presentation of extension messages to be communicated with farmers?
 - i. If yes, in which activities?
 - ii. Why?
 - iii. If no, why?
12. What is your role in the communication process?
 - i. as expert, benefactor, non-participant?
 - ii. collaborator, facilitator, participant, risk-taker, activist?
13. Are extension messages gender-sensitive?
14. Do extension messages, which the current extension communication system stipulates to be communicate with farmers, encourage linkages among agricultural researchers, extension workers, and farmers?
15. If yes, how?
16. What/who are the major sources of extension information?

6. Language, barriers and contexts

17. Do you feel barriers/problems in the current extension communication approach?
18. If yes, what are those problems?
19. How do you think could those problems be solved?
20. Are extension messages communicated with farmers in the current extension communication approach in line with the social, cultural, and linguistic values of the local people?

7. General

21. What are the major qualities/attributes of the current communication approach/es in terms of:
 - i. equality of the distribution of social & economic benefits,
 - ii. popular participation in development planning and execution,
 - iii. emphasis on local resources,

- iv. focus on development as happening locally, integration of traditional with modern (Moemeka 1994:14).

Annex 2d. Guiding questions for the FGD & in-depth interview with Extension Communication Experts with the MoA

1. Biographical information, access

1. Kebele, level of education, age, marital status?

3. Roles and commended activities of DEVELOPMENT COMMUNICATION

2. What roles do you think communication plays in efforts to increase production and productivity of agriculture?
3. What specific communication activities should people involved in different communication tasks accomplish to enable communication contribute effectively to increasing production and productivity of agriculture?

4. Communication approaches, program formats, acceptability of approaches

4. There are different communication approaches. These are top-down, participatory or interactive, and integrated approaches. Which of these approaches are common in the current extension communication system?
5. Why?
6. Which communication methods are most preferred in the current extension communication system?
 - i. Interpersonal methods
 - ii. Group methods such as demonstrations, farmers' days, educational visits, etc
 - iii. Mass media methods such as radio, TV, newspapers, flyers,
7. In what format are printed materials recommended in the current extension communication system?
 - i. Text
 - ii. Visual materials; drawings, pictures, photographs
 - iii. Combined print materials
 - iv. Visual discussion tools; picture codes, flipcharts
8. Is there any study, like audience research, conducted to learn about acceptability of the communication approaches being employed?

5. Participation and linkage

9. Who decides on content of agro-extension messages to be communicated with farmers?
10. Do journalists consult you when they produce agricultural extension messages that are communicated with farmers through the media?
11. Do you participate in agenda setting, production, and presentation of extension messages to be communicated with farmers?
 - i. If yes, in which activities?
 - ii. Why?
 - iii. If no, why?
12. What is your role in the communication process?
 - i. as expert, benefactor, non-participant?
 - ii. collaborator, facilitator, participant, risk-taker, activist?
13. Are extension messages gender-sensitive?
14. Do extension messages, which the current extension communication system stipulates to be communicate with farmers, encourage linkages among agricultural researchers, extension workers, and farmers?
15. If yes, how?
16. What/who are the major sources of extension information?

6. Language, barriers and contexts

17. Do you feel barriers/problems in the current extension communication approach?
18. If yes, what are those problems?
19. How do you think could those problems be solved?
20. Are extension messages communicated with farmers in the current extension communication approach in line with the social, cultural, and linguistic values of the local people?

7. General

21. What are the major qualities/attributes of the current communication approach/es in terms of:
 - i. equality of the distribution of social & economic benefits,
 - ii. popular participation in development planning and execution,
 - iii. emphasis on local resources,

iv. focus on development as happening locally, integration of traditional with modern (Moemeka 1994:14).

Annex 2e. Guide questions for the FGD with journalists who produce agricultural programs

1. Biographical information

1. Level of education of the journalist, qualification, program s/he produces in the media?
2. Are there specialist agricultural journalists and media beats?
If yes, mention; if no, why?

2. Roles and commended activities of DEVELOPMENT COMMUNICATION

3. What roles do you accord to communication in efforts to achieve agricultural development?
4. What specific activities should people involved in different communication tasks accomplish to contribute effectively to development?

3. Communication approaches, program formats, acceptability of approaches

5. Which communication approach is in use?
6. Why?
7. Which communication methods are commonly used when you communicate with farmers?
 - iv. Interpersonal methods
 - v. Group methods such as demonstrations, farmers' days, educational visits,
 - vi. Mass media methods such as radio, TV, newspapers, flyers,
8. Which of these methods do farmers prefer most?
9. Why?
10. Which radio approach do you employ?
 - vii. Educational radio
 - viii. Documentary and cultural radio
 - ix. Participatory radio
11. Why?
12. What format do you commonly use for extension messages communicated through radio?
 - i. Lecture/straight talk

- ii. Interviews/discussions
 - iii. Drama
 - iv. Music
 - v. Jingles/slogans
 - vi. Feature
 - vii. Magazine; can contain a number of issues in the form of interviews, music, straight talk
 - viii. Info-tainment
13. If you use more than one format, please prioritize them starting from the most frequently used one.
14. What format do you commonly use for extension messages communicated through print media?
- i. Text
 - ii. Visual materials; drawings, pictures, photographs
 - iii. Combined print materials
 - iv. Visual discussion tools; picture codes, flipcharts
15. Has there been any assessment like audience research regarding acceptability of the communication approaches by farmers?

4. Participation and linkage

16. Who decides on content of agro-extension messages that are conveyed through the media?
17. Do you accord farmers any role in this regard?
- x. If yes, what roles?
 - xi. Why?
 - xii. If no, why?
18. What is the role of the change agent in the communication process?
19. What is the gender dimension of extension messages communicated through media?
20. Do extension messages you publish encourage links among the research, extension, and farmers?
21. If yes, how?
22. What/who are your major sources of extension information?

5. Publication frequency, language, barriers and contexts

23. Are there specialist agricultural journalists and media beats?
24. If yes, mention; if no, reason out why.
25. How often do you publish extension message through mass media?
26. Do you publish extension messages in different languages?
27. If yes, in which languages?
28. If not, why?
29. Do you face problems in producing extension messages?
30. If yes, what are those?
31. How do you think could those problems be removed?
32. Are extension messages communicated by media in line with the social, cultural, and linguistic values of a specific locality?

6. General

33. What are the major qualities/attributes of the current communication approach/es? (equality of the distribution of social & economic benefits, popular participation in development planning and execution, emphasis on local resources, focus on development as endogenous making, integration of traditional with modern (Moemeka 1994:14).

Annex 2f. Guiding questions for the in-depth interview with Ada'a Wereda Agricultural Extension Team Leader

1. Biographical information, access

- 1) Kebele, level of education, age, marital status?

3. Roles and commended activities of DEVELOPMENT COMMUNICATION

- 2) What roles do you think communication plays in efforts to increase production and productivity of agriculture?
- 3) What specific communication activities should people involved in different communication tasks accomplish to enable communication contribute effectively to increasing production and productivity of agriculture?

4. Communication approaches, program formats, acceptability of approaches

- 4) There are different communication approaches. These are top-down, participatory or interactive, and integrated approaches. Which of these approaches are common in the current research-extension communication system of Ada'a Wereda Agriculture Bureau?
- 5) Why?
- 6) Which communication methods are most preferred in the current extension communication system?
 - xiii. Interpersonal methods
 - xiv. Group methods such as demonstrations, farmers' days, educational visits, etc
 - xv. Mass media methods such as radio, TV, newspapers, flyers,
- 7) In what format are printed materials recommended in the current extension communication system of the wereda?
 - i) Text
 - ii) Visual materials; drawings, pictures, photographs
 - iii) Combined print materials
 - iv) Visual discussion tools; picture codes, flipcharts
- 8) Is there any study, like audience research, conducted to learn about acceptability of the communication approaches being employed? If yes, what are the results?

5. Participation and linkage

- 9) Who decides on content of agro-extension messages which researchers and extension workers communicate with farmers?
- 10) Are farmers involved in the communication process? If yes, how? If no, why?
- 11) Do journalists consult you when they produce agricultural extension messages that are communicated with farmers through the media?
- 12) Does the Wereda Agriculture Bureau participate in agenda setting, production, and presentation of extension messages to be communicated with farmers?
 - i. If yes, in which activities?
 - ii. Why?
 - iii. If no, why?
- 13) What roles does the Wereda Agriculture Bureau play in the communication process?
 - i) as expert, benefactor, non-participant?
 - ii) collaborator, facilitator, participant, risk-taker, activist?
- 14) Is the extension approach being implemented in the wereda gender-sensitive?
- 15) Does the extension approach encourage linkages among agricultural researchers, extension workers, and farmers?
- 16) If yes, how?
- 17) What/who are the major sources of extension information?

6. Language, barriers and contexts

- 18) Do you feel barriers/problems in the current extension communication approach?
- 19) If yes, what are those problems?
- 20) How do you think could those problems be solved?
- 21) Are extension messages which DAs, researchers and extension workers communicate with in line with the social, cultural, and linguistic values of the local people?

7. General

- 22) What are the major attributes of the current communication approach/es in terms of:
 - i) equality of the distribution of social & economic benefits,
 - ii) popular participation in development planning and execution,
 - iii) emphasis on local resources,
 - iv) focus on development as happening locally, integration of traditional with modern (Moemeka 1994:14).

Annex 2g. Guide questions for the in-depth interview with the DZARC Extension Research Coordinator

1. Biographical information, access

1. Kebele, level of education, age, marital status?

3. Roles and commended activities of DEVELOPMENT COMMUNICATION

2. What roles do you think communication plays in efforts to increase production and productivity of agriculture?
3. What specific communication activities should people involved in different communication tasks accomplish to enable communication contribute effectively to increasing production and productivity of agriculture?

4. Communication approaches, program formats, acceptability of approaches

4. There are different communication approaches. These are top-down, participatory or interactive, and integrated approaches. Which of these approaches are common in the current research-extension communication system of Debre Zeit Agricultural Research Center (DZARC)?
5. Why?
6. Which communication methods are most preferred in the current extension communication system?
 - i. Interpersonal methods
 - ii. Group methods such as demonstrations, farmers' days, educational visits, etc
 - iii. Mass media methods such as radio, TV, newspapers, flyers,
7. In what format are printed materials recommended in the current extension communication system?
 - i) Text
 - ii) Visual materials; drawings, pictures, photographs
 - iii) Combined print materials
 - iv) Visual discussion tools; picture codes, flipcharts
8. Is there any study, like audience research, conducted to learn about acceptability of the communication approaches being employed? If yes, what are the results?

5. Participation and linkage

9. Who decides on content of agro-extension messages which researchers and extension workers communicate with farmers?
10. Are farmers involved in the communication process? If yes, how? If no, why?
11. Do journalists consult you when they produce agricultural extension messages that are communicated with farmers through the media?
12. Do you participate in agenda setting, production, and presentation of extension messages to be communicated with farmers?
 - i. If yes, in which activities?
 - ii. Why?
 - iii. If no, why?
13. What is your role in the communication process?
 - i) as expert, benefactor, non-participant?
 - ii) collaborator, facilitator, participant, risk-taker, activist?
14. Is the extension approach gender-sensitive?
15. Does the extension approach encourage linkages among agricultural researchers, extension workers, and farmers?
16. If yes, how?
17. What/who are the major sources of extension information?

6. Language, barriers and contexts

18. Do you feel barriers/problems in the current extension communication approach?
19. If yes, what are those problems?
20. How do you think could those problems be solved?
21. Are extension messages which researchers and extension workers communicate with in line with the social, cultural, and linguistic values of the local people?

7. General

22. What are the major attributes of the current communication approach/es in terms of:
 - i) equality of the distribution of social & economic benefits,
 - ii) popular participation in development planning and execution,
 - iii) emphasis on local resources,
 - iv) focus on development as happening locally, integration of traditional with modern
 (Moemeka 1994:14).