



**A Study on Communication between Department of
Agricultural Extension (DAE) and the farmers of Bangladesh**

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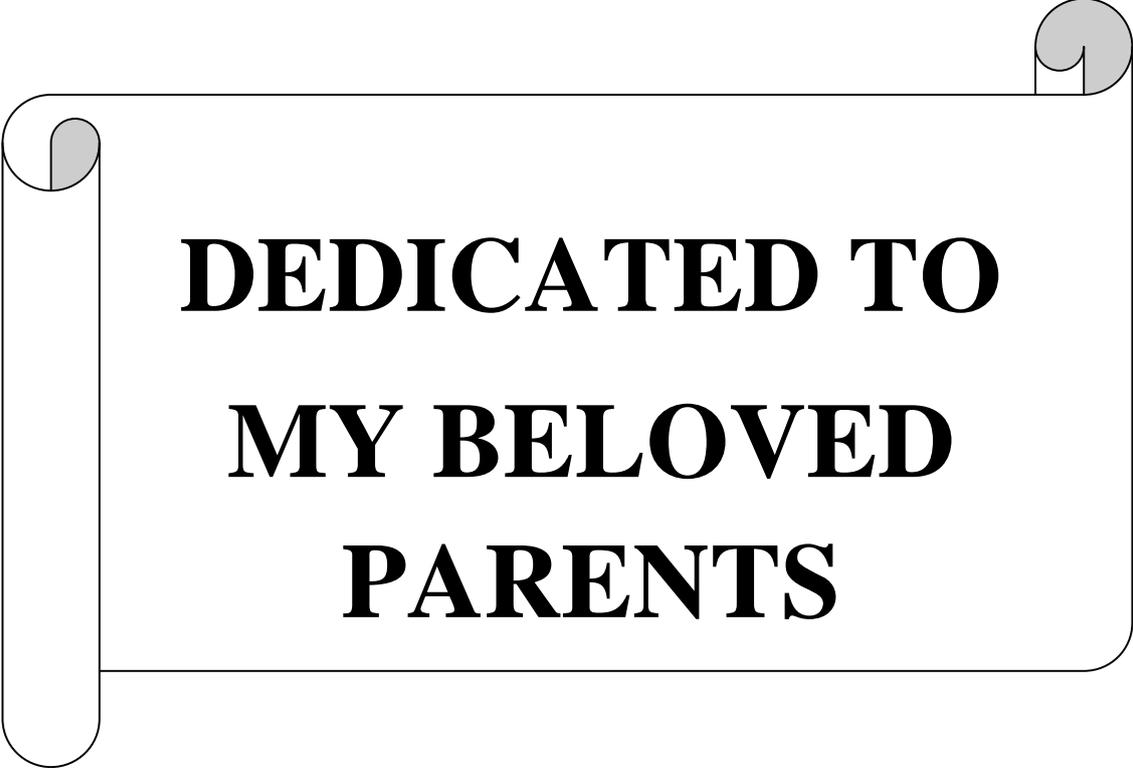
—Tanvir Ahmed

Declaration

I, (Tanvir Ahmed) hereby declare that the thesis entitled, “A Study on Communication between Department of Agricultural Extension (DAE) and the farmers of Bangladesh” submitted as partial fulfillment of the requirements for the Master degree in Environmental Communication and Management embodies the result of a piece of bonafide research work carried out in accordance with academic rules. In this own work of mine, to the best of my knowledge I referenced properly if I used anything published or written by another person.

Date: April 15, 2012

Signature:



**DEDICATED TO
MY BELOVED
PARENTS**

Acronyms

BBS	Bangladesh Bureau of Statistics
DAE	Department of Agricultural Extension
FINA	Farmer Information Needs Assessment
GDP	Gross Domestic Product
HYV	High Yielding Variety
NAEP	New Agriculture Extension Policy
NGOs	Non Governmental Organizations
REA	Revised Extension Approach

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A Study on Communication between Department of Agricultural Extension (DAE) and the farmers of Bangladesh

BY

TANVIR AHMED

THESIS ABSTRACT

This paper investigates the problems in communication between Department of Agricultural Extension (DAE) and the farmers of Bangladesh and identifies the ways of improvement of it. How the communication is going on between these two parties and what is their perception on each other has been examined as well. I developed semi-structured interviews to collect information from the farmers and officers who work at DAE. I used the concept of environmental communication in order to analysis the data that I gathered from the informants as a co producer. The results show that there are a lot of difficulties in communication and those are famers' reliability on predominant farming, Pre-understanding, Misunderstanding, Problems within the organization, Communication on irregular basis, Due to overlooked of farmers' need, Unfair and corruption with poor infrastructure and Lack of sufficient inputs. The findings argue that Need assessment, co-operation, participation, trust, developed infrastructure are the necessary factors what are the ways of improvement of that communication. It is also found that DAE transfers new technologies without considering the background of target groups. Based on findings, Farmers are perceived as laggards by the employees where farmers perceive that extension agents are dishonest and don't care their capability.

Keywords: Communication, Agricultural extension, DAE, Farmers

1. INTRODUCTION:

1.1. Background:

Bangladesh is a developing country which got its independence from Pakistan in 1971 after a nine month bloody struggle. The People's Republic of Bangladesh is a democratic country which is situated in north eastern part of South Asia with an area of 147,570 sq km (56,977 square miles). Bangladesh shares its boundary mostly with India on three sides (east, north, and west) where shortly with Myanmar on one side (southeast) and the Bay of Bengal is located to the south of the country. The capital of Bangladesh is Dhaka and peoples of the country speak in Bengali. It is an evergreen country and a lot of rivers flow through Bangladesh. It is a densely populated country where 964 inhabitants live per square kilometre and its total population is 142.32 million. The annual growth rate of population in here is 1.34% and the sex ratio (males per 100 females) is 100.3. In Bangladesh the percentages of Muslims and Hindus are 89.6 and 9.3 respectively. In 2010, GDP per capita was \$664 where the country's total GDP was \$100.00 billion. On an average, the life expectancy is 63.5 years and the adult literacy rate is 41% in Bangladesh. The Inflation rate (consumer prices) of Bangladesh is 7% where 35.6% of the total population lives below poverty line. (BBS, 2011).

The main natural resources of Bangladesh are Fertile land, vast manpower, Abundant supply of water, long growing season, Natural gas, world' largest mangrove forest etc. If These resources are managed exactly, Bangladesh could win it's poverty and self-express as a developed country. Besides the prospects of Bangladesh there are a lot of problems which are the barriers behind its development. Compared to its very little area, Bangladesh has huge number of population. As a result, various problems are increasing day by day like environmental pollution, early marriage; polygamy, dowry system, illiteracy, loss of cultivable land and so on. Nowadays, Political instability; Corruption and Unemployment are really threat to the development of the country. In the recent years, the public securities has been reached into very alarming situation. Bangladesh is a poor country and a lot of women and children are still suffering from malnutrition seriously. Natural disaster like flood, cyclone, drought, and earthquake are really common in Bangladesh. Unfortunately, country's geographical setting is responsible for these natural calamities which cause huge loss of agricultural crops, damage of property, and disruption in lifestyle and so on.

Bangladesh is an agro-based country and agriculture is the backbone of its economy where more than 60% of the total land area is cultivated. The land of Bangladesh is very plain and fertile .It can easily produce rice, wheat, jute, maize, potato, sugarcane, pulses, oil seeds, vegetables, fruits etc. One third of Bangladesh's GDP comes from agriculture and approximately two thirds (68.5 %) of the labour market is engaged in farming (Ahmed, 2000). Most of the people of Bangladesh live in rural area and among them majority are poor who live in hand to mouth. Farmers are those people who practice agriculture. Almost 46% of the farmer's posses less than 0.2-0.3 ha of land for farming while over 65% of the farmers are small scale who own only 0.2 to 1.0 ha of

land (Begum, 2002). This vast majority of small scale farmers work directly in the land and absolutely depends on agriculture for their livelihood.

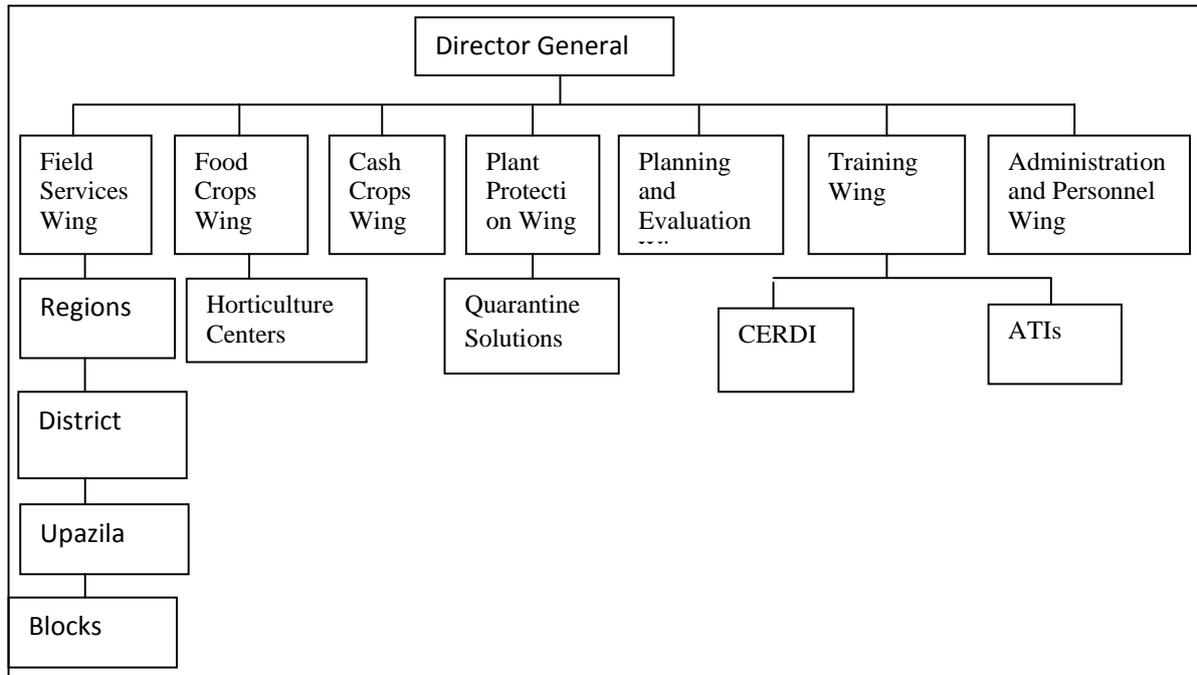
Agricultural extension could be considered as a bridge between the scientists and Governmental bodies and agricultural practice or farming (Timmer, 1982). The aim of Agricultural Extension service is to teach the farmers as they can improve their quality of life. For that purpose the extension system disseminates knowledge, techniques, ideas, methods and helpful information among the farmers. It helps the farmers to increase their production efficiency and income, to lift up the standards of rural life. It is an educational process where information can be transferred by two ways. “Technology transfer system has two streams. One flow from farms or farmers (production sites) to the research stations through extension activity and the other from research stations to the farmers through the extension activity” (Haga, 1999). Department of Agricultural Extension (DAE) works with its several wings under the supervision of Ministry of Agriculture in Bangladesh in order to provide extension services to the farmers. Agricultural Extension can be defined according to the present situation of Bangladesh as follows. “Agricultural extension is a service or system which assists farm people, through educational procedures, to improve farming methods and techniques, increase production efficiency and income, better levels of living, and lift the social and educational standards of rural life (Maunder, 1973).

1.2. DAE –its Policy and reality:

In 1960s with the preface of green revolution High Yielding Variety (HYV) rice was used as a new technology in agriculture in Bangladesh. At that time the farmers were unaware about how to cultivate this new variety of rice. As a result the role of Agricultural Extension Service had become essential in order to educate the farmers about the modern technology in agriculture. In fact, the extension service was introduced through Training and Visit (T & V) system by the help of World Bank during the 1970s and 1980s in Bangladesh. This system began to help the farmers by providing extension messages in order to carry out improved agricultural practices. In 1982 the present DAE with its eight wings was established in order to motivate and help the farmers through carrying out latest result of research and farm techniques as they can improve their productivity. A Field service is the biggest wing of DAE and block is the lowest operating unit of it where farmers can communicate directly with the officers who work here. In order to carry out better extension services New Agriculture Extension Policy (NAEP) was introduced by Bangladeshi Government in 1996. DAE developed its approaches to extension in order to increase its effectiveness and efficiency through Revised Extension Approach (REA) within the context of New Agricultural Extension Policy (NAEP) in 1999. The mission of DAE is to provide such type of extension services where all kind of farmers’ needs will be ensured and their rural life will be uplifted through sustainable agricultural practices. Agriculture is considered as one of the main part of National Agriculture Policy in Bangladesh. The aim of extension services in the context of NAEP in Bangladesh is to provide farmers with the latest results of research and farm techniques, to identify the problems and meet the needs of farmers, to motivate and help farmers

in adopting improved practices in order to increase their productivity as they can meet national consumption requirements. (NAEP1999).To implement the New Agricultural Extension Policy, well strategic plan has been made by the Department of Agricultural Extension in Bangladesh. DAE fixed its goal in the context of NAEP that they will increase the production level through modernization of crop sector with the help of new technology transfer.

Figure – 1.1: Organizational structure of DAE



Source: DAE website (<http://www.dae.gov.bd>)

We can understand the reality of extension services in Bangladesh through the evaluation of ERP what is stated by Haque. “The block supervisors could not maintain the fixed visit schedule and generally met 20-25 farmers each fortnight, rather than the targeted 80;contact Farmers were, by vast majority, male and resource-rich (having more land than other farmers; diffusion was limited as 45-55% of Contact Farmers failed to pass messages to other farmers.”(Haque, 1999). But the NAEP is committed to provide such type of extension services where the block supervisors is responsible to day to day visit in their block; where DAE’s targeting involves all categories of farmers to its extension services. (NAEP,1999).The policy says that the participation of all categories of farmers will be ensured and no one’s need will be overlooked, On the contrary,the present context argues that services provided by DAE do not fulfil the farmers needs. It is undeniable that the production level in agriculture of Bangladesh has been increased due to adaptation of HYV varieties and some other new technologies but not in a sustainable Way. Because it created bad effects through making pressure on country’s natural resources

*** The block supervisors are the lowest level staff of DAE.

soil, water, land, environment etc. Where DAE in the context of NAEP is committed to promote environmentally friendly farming practices. (NAEP1999).The principles of NAEP are to help all categories of households but the excess of female members into extension services is not ensured yet. “They do not reach the assistance to the female members of the household. Infrastructural supports for women are crucial for increasing their ability to function as independent farmers. There are significant gender inequalities associated with access to credit, labour, other production inputs and information on new technologies.”(Haque, 1999).The reality has been described by as “Present extension services seem to be poorly organized in meeting the needs of the challenges ahead, keeping in view the constraints and resource scarcity. Moreover, the interface between and among extension, research and education remains a critical area of concern to increase the efficiency of extension services. The DAE and other extension agencies including NGOs also lack linkages with the educational institutions.” (Uddin, 2008).

1.3. Justification:

The south-west part of Bangladesh has a great contribution to country’s national economy. Though it is quite remote from the capital city but most of the lands of this area are plain and fertile. Unfortunately, farmers of that area are not getting proper extension services from DAE. Ahmed (2000) showed that 83.05% of the farmers of that area had low extension contact and 86.44% had low innovativeness. Low education level of the farmers and low access to the information are challenges for the sustainable agricultural practices in that area. The present system is ignoring the needs of farmers. As a result the farmers are not getting the extension services properly. The farmers are being overlooked as the farmers are considered as a homogeneous group. Most of the poor farmers are failed to contact with the extension agents. But NAEP ensures to meet the need of farmers as Farmer Information Needs Assessment (FINA) has been designed for this purpose. (NAEP, 1999).The farmers do not get the message properly as the field demonstration is being ignored. So, the proper extension services are very much necessary for the farmers of that area. “Without an effective system of marketing, input supply, credit, transportation, extension, research, education and other services, the small-scale farmers is unable to make the transition from subsistence to market-oriented farming.”(Weitz, 1971).Considering the present situation it can be said that the implementation of the policy is questionable until now. Here is the paradox that the policy says one thing and the reality is different.

1.4. Problem formulation:

At present the overall situation of Agricultural extension in Bangladesh is not good. The reality implies that the implementation of DAE’s policies is questionable now. The extension agents do not maintain regular and timely contact with the farmers. As a result, the farmers are failed to get proper extension services. Abdullah et al (1995) described the situation as “Bangladesh agriculture has thus over nearly two decades been exposed to a rather weakly managed, eclectic,

often conflicting, system of agriculture extensionwhich has failed to meet the needs of the farmers. This situation prevailed in spite of heavy investments of aid and expatriate technical advice which has made out agriculture into experimental station for imported ideas.”When agriculture is becoming a very profitable business around the world, then Farmers of Bangladesh are really disappointed with farming. In the recent years, peoples are migrating to city from the village after leaving their agriculture. The purpose of department of agricultural extension is to teach the rural people so that they can lead nice life through practicing agriculture. But in practically, most of the farmers even do not know about the right dozes of fertilizers. With the demand of extra production, farmers are cultivating the land again and again, using the fertilizers as an imbalanced way. As a result, farmers are destroying the layers of soil and damaging the fertility of land. Now the cultivated soils content only 0.1-1.5% organic matter. (Sayeed, 2003). This amount is not a good symbol of future Bangladeshi agricultural prospects. Here, it can be said that Department of agricultural extension could not carry out their activities successfully. In these circumstances, it is important to study on the communication between DAE and the farmers of Bangladesh.

1.5. Objectives:

To get technical information and new innovation, agricultural extension services are very important for the farmers of Bangladesh who are not educated mostly. DAE with its policy can play an important role in the development of agriculture. On the contray, the farmers are not getting proper extension services and that’s why they are still doing indigenous practices and usually facing a lot of barriers with their farming. The purpose of this study is to explore the problems or difficulties in communication between the farmers and DAE and to find out how can this communication be improved as well. In this paper I would wish to understand the way of communication is done between these two parties and what are their views on each other. I will be trying to compare how communication works practically and theories what I learned from my program called Environmental Communication and Management.

1.6. Research Questions:

Keeping in mind the objectives of this research work, I will try to find out the answer of the following questions.

1. What are the problems in communication between Department of Agricultural Extension (DAE) and farmers in Bangladesh?
2. How can the communication between extension agents and farmers be improved?
3. How extension services are being carried out to the farmers?
4. What are their perceptions on each other?

2. METHODOLOGY:

The total number of interviewees that I conducted for this research work was six. Out of them, three informants used to work at DAE and rests of them were the farmers who had different experiences in terms of years of farming. Telephone interview was made with all of the respondents in different days.

I identified the DAE informants randomly and collected their telephone numbers through the visit of organization websites. When I got their phone numbers, I started to contact with them. I explained the purpose of my contact and requested them to give me an appointment for the interview in their convenient time. To get contact with the farmer's interviewees I took help from one of my close friends. According to my advice he collected the list of farmers from the block supervisors and randomly identified three of them whom I used as rests of respondents for my research work. By the studying from different sources I gathered knowledge and developed my understanding about DAE and the farmers from different aspects. On the prescheduled time I made call them over phone and took interview from the informants. The longevity of each interview was ranged from 25-35 minutes. The interviews were documented by notes taken during my conversations with the informants.

The qualitative research interview seeks to describe and the meanings of central themes in the life world of the subjects. The main task in interviewing is to understand the meaning of what the interviewees say. (Kvale, 1996).Semi-structured interview was used as the method for data collection of this study. This research work bases on the information of six informants for whom I developed open ended questions so that they can explore themselves in their own ways. In order to get a clear set of instructions that will give me more reliable, comparable and qualitative data what is essential for a successful research I developed semi-structured interview guide that will also help me to be flexible in the interviewing situation. The reason of my choice is to develop open-ended interview guide is the eventual outcome of the interview process is understood to be shaped by the interaction between interviewer and interviewee (Mishler, 1986).

Based on my achieved information regarding the topic and gathered knowledge from my program I designed two types of questions for the DAE informants and the farmers interviewees in order to get perspectives from both of two parties. Though there was similarity in case of some questions. The communication theory and practice that I learned from my program helped me a lot like how to make the respondents friendlier and how to encourage them to share their experiences. I started the session with a daily topic and before going to deep questions I asked them how is going their life and also asked several questions related to their daily life. My aim was to make the interviewing environment easier and friendly for the respondents. Keeping this

in mind I utilized my previous facilitation skills to increase the trust level between us so that they can share more information. At the very beginning of my interview I did not forget to inform the respondents about how long time I need and what I am going to ask about. Sometimes I just noted the key words of the answer and after the interview I combined the information with help of that notes and memory of mine. Then I transcribed it in English because I used my own language for the interview.

Then I categorized all of the information that I got after conducting interviews into following four categories.

- Problems in Communication
- Ways of improvement the Communication
- Ongoing Communication process
- Views on each other

At the time of interviewing I gathered different experiences from different respondents. Ways of answering the questions by all of the informants were not same. Some of them answered directly with much information and without feeling any hesitation but the others did the opposite. Among the farmers one was illiterate and two of them had few years of schooling. To give answer of some questions they were thinking more and even became quite. I had to repeat the questions in several times because they failed to understand it easily what an educated people can. They shared their feelings and gave self reflection during that interview session. I got to know from the respondents that the interviewing approach was enjoyable for them. Some of them told that they were a little confused with few questions at the time of answering because already they have talked about it in the previous answer. I think it happens for the use of open ended questions because this type of questions allows the respondents to answer more broadly. Some times it needs much meta-communication that causes bit tension at the time of interviewing.

Due to the time limitations of this study the number of interviews made was only 6, three from both parties representing the situation of a certain area in Bangladesh. Despite the low number of interviews conducted, I still believe that the information gathered gives a valuable insight in how the extension service works in Bangladesh and point out some of the challenges in communication between DAE and farmers. To get real opinion I tried my best to make easy the interviewing environment, but the accuracy is depending on how much honest the interviewees are to answer the questions. I used my own perceptions that I achieved from my courses and related literature in order to interpret that data collected through interview and finally gave a meaning from my perspectives.

Data collection was really a challenge for this research because I was in Sweden but I had to conduct it from Bangladesh. It was easier to contact with the DAE informants but I faced more problems in taking interview from the farmer's respondents. Because, most of the farmers in Bangladesh are very poor and they do not have a telephone. In these circumstances I talked one of my friends who are living in there and he wanted to help me. Then after discussing with my supervisor and taking help from my friend I was able to conduct interview from the farmers. My friend went to meet randomly selected farmers and let them to use his phone to talk with me. In this paper I added a photo of the farmer and my friend that was captured at the time of interviewing. The life of those farmers is very simple. At the beginning they asked a lot of questions to me. The sample of that questions are -why will take information from me? Will it be any problem for me? After hearing from me will you take any step that will change the present situation? But I answered to all of their questions very politely with positive tone. I used here the concept of non-violent communication and got a nice interviewing situation.

It was quite challenging for me because in the same time my mind had to concentrate on three things like to understand the answer, to make follow up questions and to take notes. Nevertheless, by using this telephone interview method I got a lot of information within few hours and even sitting in distance which saved my money and time both. Now I believe it was not only an interview rather a conversation through they shared their experiences, feelings and opinions where my contribution was being a co-producer of data for this research.

Figure 2.1: A map of Bangladesh



Source: <http://www.usaid.gov/bd/bangladesh.html>



Photo 2.1: An interviewing session when I was talking with a farmer over phone

3. THEORETICAL CONCEPTS:

This section of the study presents some theatrical concepts and models related to environmental communication in order to understand the perspectives of insiders. These concepts will be used to analysis the results in order to get the answer of research questions and finally come up with some conclusions. In addition, with the help of these described theories not only the problems that encountered in communication between DAE agents and farmers but also how to improve that communication will be investigated with the ongoing communication and their perceptions on each other as well.

3.1. Symbolic interactionism:

Symbolic interactionism is an analytical theory which highlights on the nature of interaction, individual's thinking and definition of the certain situation. (Charon 2007) .To know the theory of symbolic interectionism is very important in order to understand not only the communication between DAE and the farmers but also communication between the interviewees and me. Ulrich Nitsch (1999) states that *"People have the capacity for independent thought based on their individual values and experiences"*. To give answer for the same question DAE officers and farmers used their own perceptions. As a result I got different answers from different people because they do not have the same perspectives or view points. My own perspective is also different from them. A perspective can be defined as individual's own angel to perceive by which he wants to understand the reality (Charon, 2007). To give a meaning of their perspectives I took the role of others. To understand these phenomenons it is necessary to have knowledge on Symbolic interactionism. *"The central principle of symbolic interactionism is that we can understand what is going on only if we understand what the actors themselves believe about their world"* (Charon, 2007).The reason of having individual perspective in individual person is our knowledge and experiences are not same. The reality of actor should be reconstructed by the researcher which emphasis to interact with others. I should also try to understand the actors' language so that I can see the reality from the other's eyes. To represent something to others or among themselves the human being use symbols like words as a social objects. (Charon, 2007).

As mentioned by Cox (2006), *"symbolic actions actively shape our understanding, create meaning, and orient us to a wider world."*Symbolic action affects to shape our perspective, beliefs and behavior where communication refers to way of information transmission through active process. There are two basic components of environmental communication when we use symbolic action. Namely, instrumental and constitutive where the first one deals with communication-in-action and the second one reshapes our perspective. *"Environmental Communication to mean the pragmatic and constitutive vehicle for our understanding of the environment as well as our relationships to the natural world; it is the Symbolic medium that we use in constructing environmental problems and negotiating society's different responses to them"* (Cox, 2006). From my point of view it is necessary to integrate and use as well the above two

approaches in order to get solution easily. Among the people one individual ‘define’ others actions in lieu of simply reacting action of other’s. (Blumer, 1998).To give interpretation of other’s action one must tries to find out the meaning behind that action rather merely highlights on action itself. He has to take the role of other’s in order to give a meaning of that action. Taking the role of other is to create image of the world from other’s direction. Therefore, to study on communication between Department of Agricultural Extension (DAE) and the farmers of of Bangladesh the theory of symbolic interactionism has been taken into consideration.

3.2. Communication models:

In all communication, message is sent by the sender to its destination. To communicate with the audience sender use different media like radio, television, newspaper, magazine, Leaflet, Poster, Bulletin, Books, training course, demonstration meeting, group discussion etc.The success or failure depends how the target group react on it bases on their own culture and environment . In order to analyze the ongoing communication between DAE and the farmers several communication models has been discussed below:

The classical communication model has its widespread popularity to use in the field of environmental communication (Nitsch, 1999). According to classical model there are six components of communication namely Sender, message, channel, audience, effect and feedback. Following the process of this model the sender want to send any message to its destination through using certain channel what is one of the steps of it. Finally, with the help of monitoring method sender desires the feedback from the target group. The sender dominates the communication through delivery the message in order to get a feedback without considering the perspective of receiver. This sender-oriented model uses the mediums of communication where the target group is ignored. This model may not full fill the needs of target group because it strongly highlights on the role of the sender of information. If the audience influenced by themselves and participate actively in this process, so the communication may be effective otherwise may not. This indicates that the communicators should understand the situation from the target group’s perspectives. (Nitsch, 1999).

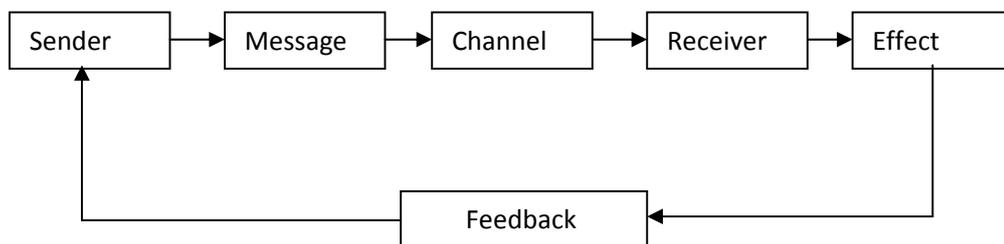


Figure 3.1: The ‘classical’ communication model

The diffusion theory is also popular to spread of a new innovation in the field of agriculture. There are three components of it which are the adoption process, adopter categories and the characteristics of innovations. (Rogers and Shoemaker, 1971).The adoption process means the time that one takes from hearing about an innovation to taking decision for apply it. This is a mental process which needs to complete five stages like knowledge, interest, evaluation, testing and application of any innovation. At the beginning of any innovation individual learns and then shows his interest to evaluate it. After that he tries out on a small scale and finally applies for large scale. The adopter categories can be divided into innovators, early adopters, early majority, late majority and laggards. This category has been done bases on the ordering where the people adopt innovations. Innovations are applied earlier by some of the people who are called innovators or pioneers. On the other hand the people who take so much time or needs to force them to apply are termed as laggards in the diffusion of innovations. The characteristics of innovations are the third component of this theory which influences how fast an individual accepts any innovation. It can be categorized into relative advantage, compatibility, complexity, trialability and observability. (Nitsch, 1999).In the use of diffusion theory communication may be perceived as biased from the views of target group. There is no guideline to select the media and methods in using diffusion theory. It recommends to choice media and methods just as based on stages where the audience looks themselves within the adoption process. It is not easier to define the role of an opinion leader as we do not know who will be the most influential at what time and for which situation. People can deny an innovation because of their own values, culture and situation which are not taken into consideration by the sender in case of applying diffusion theory. Nitsch (1999) states that *“how a person arrives at an attitude or position through interaction with their individual backgrounds, situations and society’s infrastructures.....how the innovation is perceived by the target group in the context of their particular situation.”*

The relevance model (figure 2) is another important model of communication where target group’s views have been taken into consideration. *“It represents communication as an encounter, or an exchange between the sender and the target group that is actively seeking information”* (Nitsch, 1999).Through this model sender has to listen what receiver wants and connects the information with their respected circumstances. This model requires some precautions to obtain a fruitful communication. The information sent out should be adjusted with the situation of target group by which they can meet their needs and expectations. According to Nitsch (1999), *“...the target group has to be able to see the relevance of that information from its own perspective.”*The accessibility of information by the audience should be confirmed in case of time, place, expenditure, channel, language, methods in order to reach an effective communication. This accessibility must be evaluated from the view point of target group. Nitsch (1999) points out that *“in this way the target group is much more actively involved than it is in the ‘classical’ communication model”*. The relevance model considers not only the internal factors of human mind but also the external factors that affect the communication. So in the field

of communication this is a reliable model because to design a strategy it emphasizes both on target groups' perspectives and their situation.

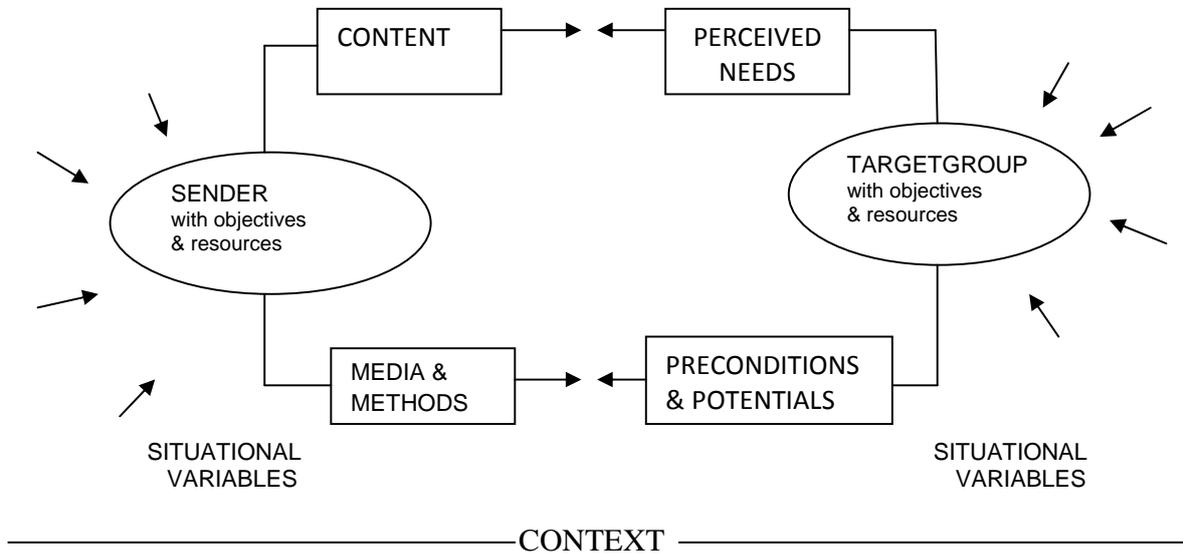


Figure 3.2: The 'relevance' communication model

4. RESULTS AND DISCUSSIONS:

For this research the total number of interviewees was six where three from DAE officers and rest of them were farmers. To analysis the data that I collected from them I used Qualitative method. In this part I will present the findings of my study concerning what are the problems in communication, how can it be improved, how extension services are carried on, and what are their views on each other. On the basis of collected information from the above six informants, I am going to discuss all of these questions here in order to understand the communication between DAE and farmers of Bangladesh.

4.1 Problems in Communication:

In this part, I will discuss about the encountered problems in communication identified by the interviewees in order to answer the first question of this study -what are the problems in communication between Department of Agricultural Extension (DAE) and the farmers in Bangladesh?

4.1.1. Farmers' reliability on predominant farming:

In the opinion of officer's interviewee, farmers are very much dependent on traditional farming. They are engaged to practice these types of farming since long time. This is one of the major problem in communication as identified by one of the DAE officer when he said, "As it is not possible to reach all the farmers personally and most of the farmers are laggard in receiving or adopting the innovations and they rely on their conventional farming, a communication gap occurs."The informants mentioned that most of the farmers takes long time and thinks more and more in case of any adoption process. Though there are some farmers who show their positive attitude but they are hardly few compared to the total number. "People have the capacity for independent thought based on their individual values and experiences. We are all different and our choice and interpretation of information is influenced by our individual experiences" (Nitsch, 1999).Different farmers have different knowledge and experiences. As a result, they have their own interest to select the system and practices in agriculture. Another interviewee added,".....they do not want to leave the traditional farming what are they doing year after year." Farmers feel safe to continue their inherited farming rather taking risk in adopting any new innovation. Due to having reliability on predominant farming and their laggardness, some farmers are reluctant to show interest toward new technology.

4.1.2. Pre-understanding:

Pre-understanding is also a barrier of communication between farmers and DAE' officers what is identified by the interviewee. One of the officer interviewee said, ".....They think that new innovation will give them extra costs in their farm." Before adopting any new innovation farmers just think that it is not helpful for them. This preunderstanding hampers the communication

process. Another officer interviewee said, “For the previously bad reputation of some front line officers we are to face problems in the communication. Some of the farmers think in advance that we have own objectives behind the communication with them.” This pre-understanding by the farmers affects the communication process where one of the farmer interviewee said, “They would like to help the rich farmer. So I can not rely on them because I am a poor farmer.”As the farmers understand before that the officers will not help them properly, they loss their interest to communicate with them. This is very much related to farmers’ perspectives. Individual develops Perspectives through the experience of reality (Charon, 2007). Misunderstanding can raise from this pre-understanding.

4.1.3. Misunderstanding:

In the opinion of officers interviewee, failure in diffusion is also a barrier of their communication process. Some of their selected farmer does not pass the information successfully. It leads to misunderstanding among the farmers. Sometimes farmers just forget to use optimum fertilizers in the demonstration plot what they recommend before. As a result it affects the production which misunderstands other farmers. One of the officer said, “They always expect from us free materials such as seed, fertilizer, tiffin etc. But we are not able from our department to fulfill their demand properly. As a result they misunderstand us and sometimes blame us that we are being corrupted.”Another officer commented, “Normally some of the farmers want to understand the objectives of our services at the very initial stage of any communication process. Somehow if they misunderstand it they do not attend the meetings and other programs regularly.”There are two reasons behind the happening of misinterpretation - if someone fails to share his perspective or he does little bit different from his plan what is not his aim (Hallgren, Unpublished).

4.1.4. Problems within the organization:

In the opinion of DAE officers there are a lot of internal problem in the department that effects their external communication with the farmers. The research-development bondage is not strong yet and any new innovation needs huge time to go to rural farm from research institute. Besides, Poor institutional arrangements of DAE and political motivation within organization create problems to delivery satisfactory extension services among the farmers. They can not supply the agricultural inputs timely in the rural area due to lack of good transport system. Furthermore, they shared that the salary structure of the officers is not well enough to lead their lives moderately. Moreover, lack of professional competence; improper training and information provided by organization effects the whole system. One of the officers commented, “Some officers work at the head office during whole of their servicing life. On the other hand, some officers works only in the field level .As a result officers of head office can not understand the reality of field level in practically and field level workers always feel disappointed for not getting promotion to reach at head office. This discrimination makes upset the front line officers what is also a reason for not

maintain good communication with the farmers.” Officers working at DAE are not satisfied on internal communication within the organization. One of them said, “Due to lack of internet connection with the official computer, it is very difficult to send information to the district levels or in the Head Office and vice versa. We have to send the hard copy of the information. As a result we cannot send or receive information in a short time.” Another officer shared, “Due to bureaucracy in administration most of the time we can not help the farmers rapidly.” The improper internal communication is the threat of an organization which decreases the motivation of the staffs. If the employees of different level strengthen their internal communication aimed at same goal, the organization will be more efficient results in good external communication. (Eriksson, 2005). So without having good internal communication it is very tough to maintain good external communication for an organization. Because, the employees of that organization lose their unity, encouragement and intensification of working together.

4.1.5. Communication on irregular basis:

In the opinion of farmer’s interviewee, the extension agents have failed to communicate with them on a regular basis. As a result, the farmers lost their faith on the extension services. One interviewee said, “I can not hope that they will follow up equally until the end at the time of adopting any new innovation. So, if I fail to communicate with them at any stage who will help me? The office is also so far from me and I can not catch them easily.” The same problem was also identified by another farmer who shared, “I like to take the advice from the extension office when I need to know about exiting agricultural operations rather to adopt any innovation. Because sometimes they give helpful suggestion which does not require so much hazards. But I think in case of taking any new innovation the situation is so complex. There is no confirmation from them that they will revisit my firm. So, my mind does not support to involve myself with any worry.” In the opinion of the farmer’s interviewee the extension officers do not maintain proper communication with them on the regular basis. As a result the trust level has been decreased in communication between farmers and DAE officers. Another farmer interviewee shared that he was disappointed for not getting help from DAE when appropriately he needed like at the time of facing problems in case of using agro-chemicals in his field. “Commitment to environmental issues motivates people to learn more about those issues, which results in further commitment. And the opposite is equally true in that a lack of commitment fosters ignorance which, in turn, encourages us to remain uncommitted” (Nitsch, 1999)

4.1.6. Due to overlooked of farmers’ need:

In the opinion of farmer’s interviewee, some of the partner organizations of DAE give loan and other incentives easily if they cultivate tobacco in their farm. But a lot of farmers do not want to cultivate tobacco because of their cultural background. Some techniques supplied by DAE are not adaptable by the farmers because of their own background. One farmer interviewee said, “I could enjoy the extension services if I would have a big farm but I do not have.” Another farmer

interviewee said, “Integrated pest management technique provided by DAE can give good quality in vegetable production but it decreases the quantity and requires intensive care that is expensive. I have to think about profitable farming first. So I can not enjoy the application of IPM method in my field.” According to Nitsch (1999), “Communication is also affected by cultural, economic and political variables”. It has been referred to as context in Figure 2: The ‘relevance’ communication model.

4.1.7. Unfair and corruption with poor infrastructure:

The farmer’s interviewee blamed to officers that they are involved in corruption which affects the communication. One of them said, “They are educated people whom I respect much but I am little bit confused about their honesty who are the front level officer works directly in the field. In the previous year when Govt. gave some money as agricultural subsidy to the farmer, some people got it even they are not involved in farming. To supply fertilizers they create discrimination as the rich farmers are given more priority than the small farmers.”In the opinion of farmer’s interviewees, mostly DAE officers select the farmers who have relatively large farm in order to give any training; they think that it is not fair. Their contact farmers do not give importance to transfer message properly to the poor farmers. To form any group they give more priority them who are familiar and rich. Even some people are not informed about it. He added another story, “Once I faced some problem with my spray-machine of pesticide. I went to extension office to treat it but I had to spend several days. They showed their logic that there was a long que. But the interesting thing is my neighbor spent only one day to solve such type of problem. Because he was a rich farmer than me and had a good relationship with them.”On the other hand, DAE officers complained that due to weak infrastructure and Lack of competent human resources they can not carry out a good communication among the farmers. The working environment is not so good even within the organization. They do not have sufficient public mass media by which they could rapid diffuse of any new technology among the farmers. In the opinion of officer’s informants, the govt. aid for agricultural extension services is not sufficient that’s why it is not possible to maintain effective communication with the clients in most of the cases. Sometimes it becomes very difficult for the field level extension worker to visit the scheduled farmer regularly. Weak infrastructure leads to failure in covering all of the farmers regarding maintain a good communication. One of the officer’s interviewee said, “Lack of good vehicles and very extreme weather are the barriers to carry on communication in an effective way.”Another interviewee shared, “To give satisfactory services in the field of agricultural extension skilled human resources is really important. Unfortunately, our front level extension worker has really poor extension skill that is a barrier to communicate effectively with the farmers.”In the opinion of officer’s interviewee, the total DAE’s personnel are not sufficient to provide extension services for the huge number of farmers in the country. The lowest level operating unit of DAE is called block which comprises around 1500 farmers. To communicate with one or more than one block’s farmers DAE has only one front level worker. For a single

person it is really tough to maintain regular communication with that large amount of farmers. Another officer said, “To provide technical advice most of the front level extension officer are not considered as credible communicator by the farmers. I think, lack of skilled resources is responsible for it.”Charon (2007) points out, “A perspective is an angle on reality, a place where the individual stands as he or she looks at and tries to understand reality.”Hence, farmers and officers identified the factors from their experience of reality.

4.1.8. Lack of sufficient inputs:

In the opinion of farmer’s interviewee, their own background is responsible to create barriers in communication with the extension agents. They think that most of the time the innovation provided by the extension office is not suitable with their capability. One farmer interviewee said “DAE recommends to cultivate high yielding variety of rice but it is expensive and requires more fertilizers. I can not afford to bring its expenses and if sometimes I do I suffer for not getting sufficient fertilizers.” Another farmer interviewee commented, “I can not afford such financial support what is needed to take a new innovation so why I will waste my time.” “In order to adopt a new technology I applied loan from the bank but I did not get. As a result at the second stage of that innovation I got very bad experience. No more I want to harm my income. Now I do not have interest on new technology because I know my previous system of farming is better.” expressed by another farmer interviewee. Nitsch (1999) states that “Non-adoption can also be the result of an individual’s situation with regard to time, money, family, health, and geographical location, which that individual has very little opportunity to change.”

Table-4.1: A snapshot of informants’ views on problems encountered in communication:

<i>Informants view on problems in communication</i>
▪ Famers’ reliability on predominant farming
▪ Pre-understanding
▪ Misunderstanding
▪ Problems within the organization: Bureaucracy & Poor institutional arrangements
▪ Communication on irregular basis
▪ Due to overlooked of farmers’ need
▪ Unfair and corruption with poor infrastructure
▪ Lack of sufficient inputs

4.1.9 Reflections:

“...the content of the information must relate to the target group’s perceived needs.....the information must be presented in such a way that it matches the target group’s preconditions and it’s potentials for receiving it.” (Nitsch, 1999). So, these two requirements are necessary to be fulfilled in order to have an effective communication. Majority percentage of the farmers are poor with have small farm. Technology supplied by DAE is not adaptable for the farmers because of their financial incapability. Because of having cultural barriers farmers do not want to cultivate tobacco. They can get incentives easily if they cultivate tobacco. But for cultivating other crops farmers do not get same kind of support like what they get for tobacco. To cultivate HYV rice recommended by DAE, farmers need to spend more money than what is needed to cultivate local variety. But in that case farmers neither have financial capability nor get necessary support from DAE. So, farmers’ needs are ignored and new innovation is supplied by DAE without considering farmer’s background. To diffuse any new technology, DAE does not follow the right way of presentation keeping in mind the preconditions of the farmers. My perception is that DAE follow top down approaches that could not meet different levels of farmers and failed to asses the farmer’s need up to the mark. Farmers’ perspectives are not taken account of because their situation is ignored. As a result the communication between DAE and farmers is not going on in an effective way.

What I understand from the interviewees that officers select their suitable farmers according to their own choices to diffuse any new technology. “*The role of opinion leader is more complex and harder to define than that. Who we trust, who we take advice from or allow ourselves to be influenced by, depends upon who we are, where we are, and what issues are involved.*” (Nitsch, 1999). If the innovator fails to pass any message properly, other farmers do not believe him more. As the honesty and fairness at officer’s work is questionable, farmers understand before that services carried out by DAE will not be helpful for them rather it will give some extra expenses. This preunderstanding leads to misunderstanding. My interpretation is that trust is one of the important elements for an effective communication. If any result demonstration plot what is done with the help of innovator does not give expected outcomes, farmers distrust both of the innovator and officers. This distrust causes misunderstanding and officers loose their credibility as a communicator. Finally, it affects the whole communication between DAE and farmers in Bangladesh.

I have also assumed that there are a lot of internal problems within DAE and its internal communication is not going on perfectly. Eriksson (2005) argues that the failure of internal communication leads to create problems for external communication. Here my interpretation is to understand the overall purpose of DAE by the employees it is very necessary to have an excellent internal communication. The cooperation between DAE and research institute is not satisfied what is very problematic for the organization. The linkage of officers working at different units is not also good. The officers also blamed that even they do not have the internet

facilities in their official computer. To communicate with others at the upper level or vice versa it takes long time. The field level officers are not satisfied with their transferring system. Bureaucratic institutional system of DAE is also responsible to make this discrimination. What I understood from the officers that they do not get same facilities what others get through working at head office. It creates distance between employees which causes bad internal communication and finally affects external communication with the farmers.

I would not like to define the situation as conflict but it is undeniable that extension services provided by DAE created some kind of confusion in farmer's mind. "*Conflict is social interaction during which the actors trust to the interaction decreases.*" (Hallgren, Unpublished). The farmers complained that the field level extension worker does not visit their field regularly. From my perspective, the farmers are little bit scared that if they take any new technology and fail to get equal follow up to the end that will cause non-profitable farming. My interpretation is communication on irregular basis and there is no commitment of revisiting the farm is responsible to create this circumstance. Besides, due to lack of skilled resources officers are failed to show themselves as a credible communicator. The employers are not fair to distribute Govt's incentives and show discrimination upon poor farmers in case of providing services. Moreover; farmers are dissatisfied on officers because they do not get extension services when exactly they need. I think, all of these made the farmers very much confused about the honesty of officers who work at DAE.

"A fundamental requirement for dealing with environmental problems is that We recognize and understand them properly [...] How we deal with environmental problems is affected by our perception of it" (Nitsch, 1999). What I understood from the interviewee that farmers are really like to continue their inherited farming. They are doing it for a long time and it requires less cost which are responsible for this behavior. Sometimes though the farmers are capable to buy agricultural inputs but those are unavailable for them because of its insufficiency. My interpretation is that the officers should understand the farmers regarding their capability and demand. Due to lack of their necessary inputs farmers do not show interest to communicate with DAE. I assumed that Govt. also does not supply adequate incentives to the Department what is needed for the farmers. From my perspectives, as the farmers are illiterate and habituated to practice conventional farming the department should understand them properly and thus make the communication strategy. The department is failed to understand their target group what is the obstacle to carry out a fruitful communication.

From the interviews conducted it is obvious there are a lot of obstacles in communication with the farmers due to underdeveloped infrastructure. Due to lack of suitable environment officers who work at DAE do not feel comfort to carry on their work among the farmers. It is not an easy task to maintain regular communication visibly where there is no good transport

system. Moreover; the number of extension officers is also very insufficient compared to the huge farmer's community in Bangladesh. In this circumstances, having proper mass media is very important. But unfortunately officers do not get that benefit from the department. From my perspectives, weak infrastructure can not harms directly to maintain a good communication but somehow it might burdens to bring smoothly. For that reason, it is not so fun for the officers to work at DAE and finally that affects to bring out a good communication with the farmers in Bangladesh.

4.2. Ways of improvement the communication:

In this part, I will discuss about the suggestions given by the interviewees what will help me to answer the second question of this study- How can the communication between extension agents and farmers be improved?

4.2.1. To asses the farmers need:

One farmer interviewee commented toward the officer, "If one officer would a farmer he could understand the reality. They get salary in each month without feeling any tension but we have a lot of risks to produce any crops in the field. With the increasing price of inputs and decreasing price of agricultural products we are very upset at the current years. In this situation technology provided by DAE is not so suitable for the small farmer like me. So, I think they should think our context in order to understand what we want."

Here the interviewee offered to the officers by 'If one officer would a farmer' to take the role of farmers as officers can able to understand the farmer's situation. Taking the role of others is to see the world from the viewpoint or eyes of others (Charon, 2007). One of the officer interviewee said, "There are many farmers who have very little or no knowledge of proper farming who are illiterate and take help from the old or rich farmer instantly if they face any problem in their field .DAE should provide more training and education for all categories of farmers as they can learn the basic of cultivation." In the opinion of interviewees, Extension services should also consider the economical condition of farmers. It can be analysed with the statement of Nitsch (1999) where he pointed out that "...how the innovation is perceived by the target group in the context of their particular situation." Farmers' needs should be considered as the basic of making objectives for sustainable strategy in agricultural extension in Bangladesh. In case of any services extension agents need to find out feedback and bring to the policy makers. To access of all categories of farmers in extension services it should be ensured that farmers can realize the need of extension services for the welfare of their farming. Rosenberg, (2003) emphasized lot on listening the needs and feelings for other people.

4.1.2. Participation of the farmers:

The interviewees shared that the farmers' participation should be ensured so that they can easily access to the extension services provided by DAE. One interviewee expressed, "Illiterate people have very little or no demand on new technology." He added, "Farmers involvement in decision making is necessary to communicate with the farmers in an effective way and to provide good services". One of the farmer's interviewee said, "I like to cultivate local variety of rice what I am doing over few decades. It requires less care and very suitable with the local environment. On the other hand, DAE's officer offers to cultivate HYV rice which requires more cost and care." Another farmer interviewee said, "We hope that they will solve our local problems first rather than only provide new technology where there is no value of our own experiences." In the opinion of interviewee, the farmer's knowledge should be also given priority in the extension research center. Some of the old farmers have their inherited farming experience and they rely on it as they do not show their interest to communicate with the extension officers expressed by one of the DAE informants. To design agricultural policy, all level of farmers' participation should be ensured. "We must, therefore, develop decision-making process that build on collaborative learning and problem solving, in which the knowledge all the actors is utilised and all interests are reasonably satisfied." (Daniels and Walker. 1997)

4.1.3 Need to change the people's behaviour:

One officers interviewee said, "People's own behaviour is also responsible for the success of extension services as they like to continue their inherited practices in the agriculture." Due to illiteracy and own strong behaviour make them reluctant to show interest toward new technology. Through changing people's own behaviour they will be able to change their attitude toward new technology. Nitch (1999) states, "Not being able to control people's behaviour does not mean that people are not influenced by information. The information we are exposed to affects our interpretation of the world and ourselves; how we feel, how we think, what we do." On the other hand one farmer interviewee said, "Most of the farmers are habituated to practice traditional farming for a long time. To bring out changes, it is necessary to improve their own strong behaviour also. When they will see the benefit of taking new technology provided by DAE, they will start to change their behaviour." According to Nitsch (1999), "...the target group has to be able to see the relevance of that information from its own perspective."

4.1.4 Proper choice of media and methods:

In the opinion of interviewees, media and methods should be selected on the basis of farmers' field context. "It is a question of finding a combination of media and methods that serves the indented target group when considering its situation and the character of the problem" (Nitsch, 1999). One of the farmers informant said, "DAE should take care more as we can receive poster, flash card, leaflet, crop calendar etc. One of the officer informants commented, "DAE should

take care more to broadcast agricultural news and programs more as the farmers can be influenced to access into new information."Farmers awareness should be increased as their involvement in extension services go high. There are few educated people who also live in rural area. For them DAE can provide more readable communication media like agricultural magazines in order to flow the information quickly. This is the opinion expressed by one of the farmer's interviewee. When other farmer shared that DAE could distribute more pictorial materials of different farm techniques as most of them could not read. According to Cox (2006) communication strategy can be defined as a definite plan in order to carry expected outcome. The way of designing a communication and how we communicate with the target group is called strategy.

4.1.5 Cooperation is needed among different sectors:

In the opinion of interviewees, non-government Organization which works as the partner of DAE should provide necessary information besides granting credit. Different stakeholders should create such an opportunity that all level of farmers can access to information equally. One interviewee said, "Sometimes we get loan from NGO's but they do not give any farm related suggestion."One of the officer interviewee said, "There is a disparity in salary structure of DAE with other NGO'S and private company. It should be equal and cooperation is needed to bring good services." Another interviewee said, "NGO's and privet sector seeks only their profit .they also need to be more cooperative by providing technical information besides supplying inputs." In the opinion of officer's interviewee, the linkage of Research-extension-farmers should be improved in order to provide better extension services through effective communication. One interviewee said, "The network between our department and research is not so strong but it should be improved in order to meet our target." According to the suggestion given by another officer, close co-operation with strong networks is very much needed.DAE should find out the real problems of the farmers and carry on it to the research center.The research centre should work on it and extension will bring that from them to the farmers. According to Nitsch (1999) "Often co-operation between several actors is necessary in order to address an environmental problem or to develop a system of production that meets environmental standards."

4.1.6 To increase the trustworthiness:

One of the farmer interviewee said, "Officers should be more conscious on their honesty. If the officers are able to avoid any kind of corruption, farmers will believe them more. As a result, farmers will show their interest to communicate with the officer." Another farmer interviewee said, "Officers should give equal importance up to the end from the beginning of any adaptation process. They also should provide extension services promptly whenever farmers need exactly. As a result, farmers will believe in their services properly."One of the officer informants said, "Sometimes I get to know that there are few front level officers who do not maintain fairness in the selection procedure of innovative farmers, and even involves themselves in corruption in case

of distribution any incentives among the farmers. But I believe that the officers are compelled to do such kind of activities. The political or other kind of powerful people create obstacle to carry on normal work by the officer. Anyway, we should be more careful on our responsibilities as the farmers can not blame us. We need to proof ourselves in order to increase the trust level among the farmers as they can rely on us to get fair extension services.” Another DAE interviewee said, “As the majority of the farmers are poor and illiterate, we should communicate with them more and more with patience. So sufficient employees should be recruited.” To analysis these I am agree with Hallgren & Ljung (2005) where they described that in such type of situation it is important to make favourable circumstances in order to develop trust of the actors in the interaction. , DAE officers must be honest to increase the trustworthiness among the farmers.

4.1.7. To develop human resources:

According to officers interviewee adequate manpower is very urgent for the Department of Agricultural Extension in order to provide good extension services through effective communication. The upper level extension officers should supervise more to the front level worker in order to develop their moral and motivation what are necessary for an effective communication. The extension personnel should be provided proper training from the organization as they can improve their skills. It is very difficult to provide good extension services with this little manpower. The front level extension worker is the key player to communicate with the farmers. So; their numbers should be increased more considering the vast farming population. One of the officer interviewee said, “The department should recruit the right person for the right position because this is a technical job where to educate and commit the people who live in rural area. Motivated people are very much needed for this sector to carry on good extension services.” According to Nitsch (1999) “....working with environmental communication demands continually increasing competence in personal communication and process facilitation.”

4.1.8. Improved infrastructure:

In the opinion of interviewees improved infrastructure is needed to communicate with the farmers in an effective way. It is needed to provide proper transport facilities to the officer for making prompt communication. Department of Agricultural Extension should take care more of its officers in case of salary structure and other facilities. More training program with proper visual aids should be provided as all categories of farmers can gain agricultural knowledge which help to grow interest among them to communicate with the DAE officers. To prevent the interfere of political influence over officers neutral work like the selection of demonstrative farmers strict rules and regulations should be introduced. One of the officer said, “It is very much necessary to have the internet connection of our official computer as we can get information quickly and communicate with the farmers in an effective way. Other officer commented, “Government should provide more aid to DAE as we can supply more incentives and subsidy to

the farmers.” “Differing perceptions will lead to differing opinions as to what should be done, how it should be done and what will it cost”. (Nitsch, 1999).

Table-4.2: A snapshot of DAE officers’ and farmers’ views on Ways of improvement the communication:

<i>Informants view on Ways of improvement the communication</i>
▪ To asses the farmers need
▪ Participation of the farmers
▪ Need to change the people’s behaviour
▪ Proper choice of media and methods
▪ Cooperation is needed among different sectors
▪ To increase the trustworthiness
▪ To develop human resources
▪ To improve infrastructure

4.2.9 Reflections:

“We do not simply react to words or acts of others; we also try to get into their heads and try to understand their words from their perspective” (Charon, 2007). From my understanding, the officers should be able to take the role of farmers if they want to interpret with their target group. Both of the two parties should consider the communication as a two-way reciprocal action where one can understand other’s perspective. The officers blamed that farmers are poor and illiterate. It’s true but my perception is farmers are not stupid and obviously they have sense. As farmers do not have enough ability to adapt a new innovation so the officers should represent the communication in such a way that the target group can see the relevance of any new technology provided by DAE. Hence, my interpretation is the officers should pay attention to listen the farmers’ needs. If the officers try to understand the farmers’ background with having empathy, the extension services will be more reliable to all categories of farmers. According to Nitsch (1999), *“Being committed means feeling empathy with something or somebody, which signifies a relationship.”*

I understood from the interviewees that it is important to increase the trust label between officers and farmers. The circumstances should be improved if farmers can able to feel that their

perspectives are not ignored by DAE. A trust building process is needed to be followed so that both of the two parties can understand each other's own perspectives and grow their willingness to interact between them. Meta-communication can be used to increase the trust level. (Hallgren & Ljung 2005). DAE should emphasize to make trustworthiness among the farmers as they can show their interest to communicate with the extension agents in order to get reliable services. For that purpose it is necessary to give importance on farmers' own experiences about farming. Knowledge should be shared through listen to them and carried on to the top policy makers as they can fulfil the genuine needs of the farmers with the help of research institution. As a result extension agents will become a credible communicator and it will help to increase the level of trust among the farmers. To increase the trust level among the farmers in order to have an effective communication, the officers need to be more honest as well. My perception is if it happens the farmers will trust the situation that helps them to be more co-operative and to grow their interest on the communication with DAE. Because among the basic elements trust is one of the most important one to carry out a communication smoothly.

Sears et al (1985) argued that learning of any new information is the precondition of attitude change. The sender (officers who works at DAE) send message to the farmers in order to improve target group's (farmers) behavior. When farmers will start to learn from that information provided by DAE, change will come through the improvement of farmers' behavior. DAE should try to provide something like that is very helpful and adaptable for all categories of farmers. Farmer's needs should be ensured through their active participation in decision making process. DAE should take necessary steps in order to make sure that the participation of all level of farmers. Nitsch (1999) stated that *"is to engage in a dialogue with people to reflect on our problem perceptions with the aim of clarifying and reviewing what we know value and believe."* From my perspectives, as illiterate farmer does not like to adopt new innovation, they can not be overlooked because most of the people are not educated in the rural area. Here, dialogue and deliberation process can be utilized to have an effective communication process. The department has to keep in mind to solve the genuine problems of the farmers according to their needs rather merely supply the new information. The policy maker should realize that farmers' involvement is very important to access all categories of farmers into extension services. The farmers can provide the valuable information about their farm, about what do they want, and about their socio-economic and cultural background. According to Charon (2007) social interaction can be defined as *'...mutual social action that involves symbolic communication and interpretations of each other's acts.'*

"..... We need to try to change and to broaden organizational structures using internal communication strategies." (Nitsch, 1999). Internal communication of DAE needs to be stronger and faster that will help to carry out a smooth communication with the farmers. From my perspectives it is very much essential to increase the extension staffs and their workload as well

in order to meet the target through an effective communication. DAE should provide more training to their workers in order to improve skill and develop their quality of work as they can be credible communicator to the farmers. Trained workers will be able to disseminate the knowledge, to make a good relationship, to create encouragement among all categories of farmers to participate in extension program. They will also be able to facilitate the procurement of knowledge to the target group where majority of them are illiterate. Furthermore, to be effective the services provided by DAE the connection among research, extension and farmers should be stronger. Farmers will be one of the important elements of a cyclical process where their needs will never be ignored. The services provided by DAE should be farmers' need oriented where their own background needs to be accountable first. Policy maker needs to take under consideration of farmers' basic knowledge on farming which will influence them to access into extension services. Necessary support should be provided for the poor farmers as they can be able to take new technology. Here, my perception is that Close co-operation among DAE and its other partner organizations is essential to provide incentives besides improved technology to the farmers.

From the interviews conducted I understand that the officers are not satisfied with the advantages that they get from the department as employers which also affect their external communication. Ostram (1992) argued that "*Weak institutions can be transformed into strong ones by resource users and policy makers through an active process of institutional design and crafting.*" Department of Agricultural Extension needs to be more careful to recruit the new stuffs through giving priority on candidate's merit and qualification. DAE should not only increase the stuffs but also introduce the strict rules and regulations so that corruption can be removed and political people can not be a barrier to provide good services. DAE should provide more facilities to the officers in case of salary, transport, internet connection and so on. Strong monitoring team can be made by DAE to protect corruption. In terms of transferring system of the officers, fair rotation process can be introduced which help to remove mental dissatisfaction of the employers and it will work against corruption as well.

"The planning of the actual communication program includes the following stages: 1) target group analysis, 2) identification of objectives and content, 3) choice of media and methods, 4) implementation, 5) analysis of results, 6) evaluation, and 7) dealing with the institutional framework." (Nitsch, 1999). At the planning of communication model by DAE should analysis the farmers' situation from different aspects. Objectives and content need to be set up according to the own philosophy of extension education and based on target group (farmers) analysis. To choice media and methods, farmers' circumstances like who are they and what is their problem should be taken into consideration by the policy makers of DAE. According to Nitsch (1999) "*Which is most appropriate, mass media or personal contact, depends upon the situation and on what the issue is.*" Here, my interpretation is DAE should provide more pictorial or visual materials than the writing materials because most of the farmers can not read and

write. Besides, writings materials also can be supplied depending on the situation. The implementation of the communication program must be done in such a way that the farmers can see the bona fide interest from their perspectives. To analysis of result and evaluate the carried out communication process, DAE needs to examine to what extent and how much of their work has been implemented among the farmers according to their pre-fixed objectives. DAE also should think and work on institutional framework in order to provide satisfied extension services through proper communication process. From my understanding based on interviews conducted, in the present agricultural context of Bangladesh the policy makers of DAE should think about their employees very seriously and keeping in mind the following questions. How many front level officers are needed for the certain numbers of farmers? What will be their special qualification to do this technical job? How can develop their skill regularly? How many upper level officers are needed for the certain number of front level officers in order to guide and supervise them?

4.3. Ongoing communication process:

Here, my aim is to find out the answer of third question of this study and that is how extension services are being carried out to the farmers?

One of the DAE informants mentioned some communication method that he usually uses. Out of these methods, farmer's day¹ is much more used way of communication according to him. Through farmer's day he communicates with them and uses different methods like informal talks, poster, leaflet, flash card and so on. The interviewee commented that the method is so useful to expand new information and receive feedback promptly through giving answer of arising questions from the farmers in their field location. This can be analyzed with the line of (Nitsch, 1999) where he points out in terms of classical communication model, "Using this model, we think of communication as a process by which a sender wants to deliver a message to an audience in order to achieve a specific effect."

Another officer said, "I usually make direct and indirect communication with the farmers. When I went to the field for supervising the demonstration plots, then I talk with other farmers on the way and when I can't visit any field due to business in other work I sent my subordinate i.e., Sub Assistant Agriculture Officer and Sub Assistant Plant protection Officer to observe and to give suggestion to the farmers for solving their problems. As for example, if any farmer call me to visit their field, then if possible I go or try understand their problem and if it is possible I go there or I request my SAAO'S to visit the field. When any new demonstration of new variety is to be set up, then I discuss the preconditions with SAAO's and advise them to select some suitable farmers. Among the farmers visiting their field, I decide the most suitable farmer.

¹ Farmer's day is a session held in farmer's place arranged by DAE in order to disseminate knowledge among farmer's participants.

Group discussion in different locations within my area is arranged by SAAO's and I along with my Agriculture Officer go their and give suggestion regarding crop cultivation technique, protection procedure in case of disease or insect infestation."He also added, "Different farmers take different period of time in case of adapting any new innovation. In an adaptation process even after achieving knowledge, farmers spend their time on observation and thinking about others. Even there are some farmers who are very slow or deny adapting. On the other hand there are rarely few farmers who are very advance to adapt any new technology." "Once we have ascertained this, we should turn our attention to those who are most receptive to the information and are best able to pass it on to others." (Nitsch, 1999).

Another officer expressed, "I communicate with the farmers through group training, individual contact, field day, crop cutting programs etc.I also use live samples, booklets, leaflets, farmer's field school, motivational lectures and so on." According to him communication also takes place at the time of arranging training for demonstration plot and at the time of supplying foundation seed, fertilizers and others agricultural inputs. "The diffusion theory directs our attention toward the careful identification of the intended audience." (Nitsch, 1999).

One of the farmer interviewee said, "sometimes but not in so often DAE officer invites a group of farmers in someone's field or other place what is called farmer's day through they delivery lectures and suggestions for improved farming." In the opinion of farmers interviewee, DAE officers use communication method like poster or other printed materials. Also radio and Television broadcasts some agriculture related program. Handbooks are supplied by DAE which says about different latest technique of cultivation. Another farmer interviewee commented, "Though most of the times I fail but I try to call them in case of facing any problems in my field. Rarely I got their visit in timely when exactly I needed." (Nitsch, 1999) states that "They correspond with a commonly shared perception in our society of communication as an activity dominated by the sender."

4.3.1. Reflections:

"The classical communication model and the diffusion theory, together, propose a framework for systematic planning of communication as a targeted activity in which the audience, message (content) and channel (media) are selected and the effect then monitored through feedback." (Nitsch, 1999).What I understand from the interviews that the information flows to the farmers from DAE in a top-down process. The officers who are working at the Department of Agricultural Extension in Bangladesh (sender) deliver any latest information on cultivation or modern technology (content) to the target group(Farmers).To diffuse the innovation they use different channel like suitable farmer ,poster, leaflet, flash card, Handbooks, radio, Television which can be termed into media. They also monitor the effect (feedback) of their communication process through arranging different occasions like Farmer's day, field day, Result demonstration, plot demonstration and so on.So,extension services is provided by DAE can be

perceived as a biased activity from the target group's (farmers) perspectives. Different interviewee mentioned different media and methods. They also deliver informal talks, group training, and personal contact when they need. My perception is that there is no specific guideline for the officers to select the media and methods in order to diffuse any new technologies among the farmers. They select it considering the situation and types of innovation. All of the farmers do not spend the same period of time to adapt any new technology. To apply the new innovation, farmers pass several stages by themselves after receiving message. In diffusion remarkable contribution is kept by the innovators whom the officers called as suitable farmer. DAE uses demonstration plot made with the help of suitable farmer in order to make it visible to other farmers. What I understand Based on the interviews conducted, the extension services are provided by DAE is similar with the classical communication model and diffusion theory.

4.4. Views on each other:

In this part, I want to find out the answer of fourth question of this research -what are their perceptions on each other?

In the opinion of officer's interviewee, the farmers are very simple people and lead very normal life. They are very open minded and their social bondage is really strong. They maintain nice family contact and never hesitate to share sorrowness and happiness among each other. Most of the farmers are illiterate and very poor. They consider training materials and demonstration materials as relief. Officers informants expressed their views that the farmers, as most of them are small and marginal; they want fertilizer and other agricultural inputs either freely or at very lower cost. They thought that they will receive direct government help for their cultivation. Without focusing on improving the production of crop, they just do cultivation as they have to do something for earnings. Besides, among the farmers there are some politically powerful people who want to be demonstrative farmers, want to join the training program for honorium, want to take materials from the officers but they do not apply that technology in their field. Never follow SAAO's direction due their ego problems. The officers can not avoid them because they are powerful and influential people in a certain area. One of the officer said "Due to their poverty and illiteracy majority of the farmers show very little or even sometimes no interest on the new message or technology." "We don't have to like the faults. But we do have to respect our target groups as the human beings they (and we) are, not perfect yet with the potential for growth." One officer informant said, "Few advanced and interested farmers are very much eager to receive any new innovation but most percentage takes much time. I think economical solvency or insolvency influence them much in receiving any new innovation." According to Nitsch (1999) the people who take so much time or needs to force them to apply are termed as laggards in the diffusion of innovations.

In the opinion of farmer's interviewee, officers give priority to rich farmers for providing agricultural inputs. Their selection process of demonstrative farmer is not transparent. Some of the front level officers are involved in corruption and not dedicated for their work. They are not so much conscious about their job responsibilities. The officers are failed to maintain regular communication with the farmers. Still now the farmers do not believe them absolutely as a credible communicator. Most of the front level officers are not well qualified for their profession. They are not totally honest at their work. One of the farmers shared, "I am confused about their job responsibilities. My experience says the officers finish their field visit before office time in most of the days." Another farmer shared, "If the officers would work hard with honesty they could be helpful for the farmers." One of the farmer informants said, "They do not try to understand our situation rather recommend to adopt new technology where our needs are ignored." "Knowing about context is sometimes the most important element of environmental communication." (Nitsch, 1999)

4.4.1. Reflections:

Through interviewing both of the two parties express their perceptions on each other. My understanding is the communication between farmers and the officers working at DAE is not so smooth until now. It can be said that there is quite negative type of perception on each other. Though the officers know that the farmers are very simple people but officers also blame them as laggards and are not so interested to communicate with DAE. "*Environmental Communication to mean the pragmatic and constitutive vehicle for our understanding of the environment as well as our relationships to the natural world; it is the Symbolic medium that we use in constructing environmental problems and negotiating society's different responses to them*" (Cox, 2006). Here, my interpretation is that the officers should understand the farmers' condition where it is necessary to integrate the communication in action and reshaping their perspectives. As most of the farmers are not rich and they do not have large farm. And, illiteracy is the curse for the largest professional group in Bangladesh.

What I understand from the farmers, they think that their needs are ignored by DAE. The officers diffuse the new innovation without considering the farmers' background. Farmers think that officers are involved with corruption and it results decreasing the trust toward officers. Farmers also blamed that the officers are not skilled and qualified; they are irregular and irresponsible, also dishonest and unfair at their work. Perspectives is formed during the interaction with others. Perspectives is related to individual's reality that comes through own experiences. (Charon, 2007). According to my interpretation, farmers shared their views that they achieved at the time of interaction with the officers. All of these perceptions of the farmers are responsible to loose the credibility of the officers as perfect communicator.

5. CONCLUSION:

To inquire the communication between Department of Agricultural Extension (DAE) and the farmers of Bangladesh was the main aim of this research work. The problems and ways of improvement in communication between these two parties have been investigated. To understand the communication, the ongoing process and perception on each other were also studied as well. I analysed the empirical data collected from target informants and finally could conclude my interpretations as follows.

Based on findings, we got to know that DAE uses classical communication model with diffusion theory in order to carry out extension services. We can also understand their perceptions on each other. Farmers are perceived as laggards by the employees where farmers perceive that extension agents are dishonest and don't care their capability. The findings argue that farmers are not satisfied with the extension services and the employees blamed to the infrastructure of DAE and insufficient Govt.'s aid in agriculture sector. Through analyzing the findings we can realize that there are a lot of problems in the communication between DAE and the farmers of Bangladesh. Farmers do not have sufficient inputs to adopt new technology and their social, cultural, economical background is ignored by DAE. Moreover, due to lack of fairness at officer's work and not maintain communication on a regular basis, they lost their credibility by the farmers. On the other hand, farmers rely on their indigenous practices and that's why they do not show so much interest to communicate with the DAE. Furthermore, it is found that the poor infrastructure of DAE, bureaucratic and unsubstantial arrangements of the organization are somehow creating problems to carry out a fruitful communication.

From the study based on interviews conducted, we can identify some ways of improvement of the communication between DAE and farmers in Bangladesh. Extension education has its own philosophy and specific objectives what is necessary to understand by the responsible people at the time of decision making process and developing its communication strategy as well. Different organizations and sectors (public and private) should be more cooperative and work together through the use of appropriate communication model where the participation of all levels of farmers will be ensured. Findings shows, it is necessary to develop communication model based on farmers' social and economical context where their needs will never be ignored. To increase trustworthiness among the farmers, officers should be more fair and responsible at work. Moreover, the Govt's aids should be increased and Department should take care more its employees as they can carry out extension services comfortably through using appropriate media and methods. The performance of extension worker is really important in the field of agriculture. Therefore, DAE needs adequate qualified staffs to provide better extension services to wide ranges of farming population in Bangladesh. Their efficiency should be increased through training, skill development, proper supervision and strong motivation. Finally, as agriculture is really important in the context of Bangladesh, the decision maker should make a sound extension policy so that DAE can provide good services through an effective communication.

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7. APPENDICES:

APPENDIX 1

Questions for the farmers interviewee:

1. Hello, what is your name please?
2. What is your educational qualification?
3. How many years are you involved with agricultural practices?
4. Can I know about your farm size; I mean how much land do you cultivate?
5. Could you please tell me about your last year's income from agriculture?
6. How many members are there in your family (including yourself)?
7. May I know the nature of your organizational participation, e.g. Farmers co-operative society or others?
8. Now I will ask you about your cosmopolitaness, I mean how frequently do you go out of your own area like district or capital city?
9. How frequently do you contact with extension agents?
10. What is your perception on extension agents who are employing at DAE?
11. How do you get extension services from DAE?
12. What are the difficulties of your communication?
15. Give me your suggestions to improve this communication process.
16. Are you interested to add anything more about this session?
17. Do you want to ask me anything?

APPENDIX 2

Questions for the officers interviewee:

1. Hello, could you tell me your name please?
2. May I know your designation?
3. Why did you choice this profession?
4. How long are you working here?

5. Please tell me what responsibilities do you have as an extension agent?
 6. How do you communicate with the farmers?
 7. What is the problem of your internal communication within DAE?
 8. What are your suggestions to improve those internal problems?
 9. Why does often communication fail, what do you think about it?
 10. What is your perception/view on the farmers?
 11. What are the problems or difficulties in communicating with the farmers?
 12. How can the communication be improved?
 13. What is your own thinking to improve this communication process? What are the restrictions?
 14. Now, I want to know from you the SWOT analysis of your communication. So, please tell me
- Strengths –
- Weakness-
- Opportunities-
- Threats-
15. Do you want to tell anything more about this session?
 16. How did you feel? Do you want to know anything from me?